SARANATHAN COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Venkateswara Nagar, Panjappur, Tiruchirappalli-620012, Tamil Nadu.

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CRITERION 1.1.2

The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

2023-2024

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Second Year FIRST IA TEST FOR I AND II Year _October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.30.10.2023

Circular

Third Internal Assessment Test for Third Year (5th Sem.) & Final Year (VII Sem.) B.E./B.Tech., Classes will commence from 2nd November 2023 (THURSDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

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Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS NOVEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
2nd November 2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control		CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th November 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE301-Power Electronics for Renewable Energy Systems	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
6th November 2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th November 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	
8th November 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
9th November 2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation	ME3592-Metrology and Measurements	CE3025-Airports and Harbours	CCS335-Cloud computing	CCS367-Storage Technologies

Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS _ NOVEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
2nd November 2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th November 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
6th November 2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	GE8073-Fundamentals of Nanoscience	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th November 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
8th November 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9th November 2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	EI8091-Instrumentationin Petrochemical Industries	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

21 March 2024

Circular

Second Internal Assessment Testfor Third Year (6th Sem.)& Final Year (8th Sem.) for B.E./B.Tech., Classes will commence from 25thMarch 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

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Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Third Year (6th Sem.) _ April 2024

Year: Third **Sem. 6th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
25th March 2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing	EE3601 - Protection and Switchgear	CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer	CE3602 - Structural Analysis II	CCW331 - Business Analytics	CCS365 - Software Defined Networks
26th March 2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3602 - Power System Operation and Control	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
27th March 2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	OCS352 - IOT Concepts and Applications	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construccion Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
28th March 2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	EE3011 - Multilevel Power Converters	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
1st April 2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3020 - Smart System Automation	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
2nd April 2024	CCS341 - Data Warehousing				CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Final Year (8th Sem.) _ April 2024

Year: Final Year **Sem. 8th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil
25th March 2024							
26th March 2024							
27th March 2024							GE8076 - Professional Ethics In Engineering
28th March 2024							CE8020 - Maintanance, Repair and Rehabilation of Structures
1st April 2024							
2nd April 2024							

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.17th April 2024

Circular

Third Internal Assessment Test for Third Year (6th Sem.) for B.E. / B.Tech., Classes will commence from 22nd April 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
T H I R D - I A Test for Third Year (6th Sem.) _ April _ May 2024

Year: Third Sem. 6th

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
22.4.2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing		CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer		CCW331 - Business Analytics	CCS365 - Software Defined Networks
23.4.2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3601 - Protection and Switchgear	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
24.4.2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	EE3602 - Power System Operation and Control	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
25.4.2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	OCS352 - IOT Concepts and Applications	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
29.4.2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3011 - Multilevel Power Converters	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
30.4.2024	CCS341 - Data Warehousing		EE3020 - Smart System Automation		CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	
2.5.2024							CE3602 - Structural Analysis II		

Principal

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – II			Date/ Session	25.03.2024	Marks	50
Course code	CCS365	Course Title	SOFTWARE DEFINED NETWORKS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Sem/ Section	VI	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Distributed Controller.	C311PE4V36.2	R
2	What is High Availability Clusters?	C311PE4V36.2	U
3	Define Autonomous System.	C311PE4V36.2	U
4	What are all the functions of Northbound API?	C311PE4V36.2	U
5	What are the functions of SDN Application Layer?	C311PE4V36.3	U
6	Define Frenetic.	C311PE4V36.3	R
7	Define SDN Measurement and Monitoring.	C311PE4V36.3	U
8	Define DDoS.	C311PE4V36.3	R
9	What is Mesos cluster manager?	C311PE4V36.3	R
10	Define socket.	C311PE4V36.3	U

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q.No	Questions	CO	Skills
11	Explain the concept of SDN Distributed Controller.	C311PE4V36.1	U
	Or		
12	Explain BGP in SDN Network.	C311PE4V36.1	R
13	Explain Network Service Abstraction layer.	C311PE4V36.2	R
	Or		
14	Explain security threads and enhance network security in SDN network.	C311PE4V36.2	R

Part – C (Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Explain the SDN Traffic Engineering Application	C311PE4V36.1	U
	Or		
16	Explain the SDN Security Application.	C311PE4V36.1	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty. A.SRIDEVI

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - I			Date/ Session	02.09.2023	Marks	50
Course code	AD3501	Course Title	Deep Learning			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Scalar and Vector.	C301.1	R
2	What is Stationary Points? List its types.	C301.1	R
3	Difference between Hyperparameter and parameters.	C301.1	U
4	Compare overfitting and underfitting.	C301.1	U
5	Define Manifold Learning.	C301.1	R
6	What are the disadvantages of using ANN for image classification?	C301.2	R
7	What are the benefits of Pooling layer?	C301.2	R
8	What is sparse interaction?	C301.2	R
9	What is average pooling?	C301.2	R
10	What is the use of padding?	C301.2	U

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about Challenges motivating deep learning.	C301.1	R
	Or		
12	Discuss in detail about Capacity of a model.	C301.1	R
13	Write a short note on i. Feedforward networks ii. Backpropagation	C301.1	R
	Or		
14	Write a short note on i. Mini Batch Gradient Descent ii. Stochastic Gradient Descent	C301.1	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about convolution operation with an example.	C301.2	R
	Or		
16	Write a short note on i. Strided Convolution ii. Tiled Convolution iii. Transposed and Dilated Convolution	C301.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Members:Mr.P.DineshKumar,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - III			Date/ Session	04.11.2023	Marks	50
Course code	AD3501	Course Title	Deep Learning			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List some of the performance metrics in deep learning.	C301.5	R
2	Difference between Parameters and Hyperparameters.	C301.5	U
3	What is Manual Hyperparameter Tuning?	C301.5	R
4	What is mean by Latent Space Representation?	C301.6	R
5	List some of the applications of Autoencoders.	C301.6	R
6	Name the Four Hyperparameters that need to be set before training an autoencoders.	C301.6	U
7	Define Sparse Autoencoders.	C301.6	R
8	Define Stochastic Autoencoders.	C301.6	R
9	Write down the expression for GAN.	C301.6	R
10	What is the use of discriminator model in GAN?	C301.6	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Write a short note on the following i. Performance Metrics in Deep Learning ii. Baseline models	C301.5	R
	Or		
12	Explain in detail about Manual Hyperparameter and Automatic Hyperparameter.	C301.5	R
13	Write a short note on i. Regularized autoencoders ii. Undercomplete autoencoders	C301.6	R
	Or		
14	Write a short note on i. Denoising autoencoders ii. Contractive autoencoders	C301.6	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about Generative Adversarial Network.	C301.6	R
	Or		
16	Explain in detail about Variational Autoencoders.	C301.6	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Members:Mr.P.DineshKumar,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - II			Date/ Session	04.05.2024	Marks	50
Course code	AL3451	Course Title	Machine Learning			
Batch No.		Duration	90 mins	Academic Year	2022 - 2023	
Year/	II	Semester/ Section	IV	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Support Vector and Hyperplane.	C212.2	R
2	What is probabilistic discriminative model? Given an example.	C212.2	R
3	Define Information Gain.	C212.2	R
4	List out the reasons why we combine models in machine learning	C212.3	U
5	What is ensemble learning?	C212.3	R
6	What are the categories of ensemble learning?	C212.3	R
7	Define Bootstrapping.	C212.3	R
8	Write the steps to perform bagging.	C212.3	R
9	Define Unsupervised learning.	C212.3	R
10	List the types of Boosting.	C212.3	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about Naïve Bayes Classifier with an example	C212.2	R
	Or		
12	Discuss in detail about Decision Tree.	C212.2	R
13	Explain in detail about Support Vector Machine	C212.2	R
	Or		
14	Explain in detail about Random Forest.	C212.2	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Use K-Means Clustering algorithm to divide the following data into two clusters. Choose any two data points as centroids (cluster center)	C212.3	A

X1	1	2	2	3	4	5
X2	1	1	3	2	3	5

	Or		
16	Explain in detail about Bagging, Boosting and Stacking	C212.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Members:Mr.P.DineshKumar,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - II			Date/ Session	06.05.2024	Marks	50
Course code	AL3452	Course Title	Operating Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	II	Semester/ Section	IV	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Race condition?	C211.2	R
2	What are the difference between user-level and kernel-level threads?	C211.2	U
3	Define mutual exclusion.	C211.2	R
4	State the conditions for deadlock.	C211.2	R
5	Define request edge and assignment edge.	C211.2	U
6	Write the three ways to deal the deadlock problem.	C211.2	U
7	Difference between Segmentation and paging.	C211.3	U
8	Difference between contiguous and non-contiguous memory allocation.	C211.3	U
9	Explain the types of fragmentation.	C211.3	R
10	Explain the consequences of swapping.	C211.3	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	What is deadlock and resource allocation graphs? Explain necessary condition for deadlock. Discuss deadlock solutions.	C211.2	R
	Or		
12	Describe critical section problem, critical region and mutual exclusion	C211.2	U
13	Explain about the structure of the page table.	C211.3	R
	Or		
14	Draw the diagram of segmentation memory management scheme and explain its principle.	C211.3	U

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Consider the following status of the system. Allocation / Max / Available A B C D | A B C D | A B C D P0 0 0 1 2 | 0 0 1 2 | 1 5 2 0 P1 1 0 0 0 | 1 7 5 0 | P2 1 3 5 4 | 2 3 5 6 | P3 0 6 3 2 | 0 6 5 2 | P4 0 0 1 4 | 0 6 5 6 | Answer the following questions using the banker's algorithm: i) What is the content of the matrix need? ii) Is the system in a safe state? iii) If a request from process P1 arrives for (0, 4, 2, 0) can the request be granted immediately?	C21 1.2	AZ
	Or		
16	Explain about monitors and Dining-philosopher critical section problem solution using monitor.	C21 1.2	AZ

*Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks*Faculty Members:Ms.G.Nithyalakshmi.,AP/AI&DS, Ms.A.kayal.,AP/AI & DS

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – I			**Date/ Session**	**31.08.2023**	**Marks**	**50**
Course code	CCS334	**Course Title**	BIG DATA ANALYTICS			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year/	III	**Sem/ Section**	V	**Department**	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What do you mean by big data?	C304.1	R
2	List out the characteristics of Big data.	C304.1	U
3	Define web analytics.	C304.1	R
4	Name some big data technologies.	C304.1	AZ
5	Justify the need for BI.	C304.1	U
6	Differentiate inter and trans firewall analytics.	C304.1	U
7	What are types of crowd sourcing?	C304.1	R
8	What is NoSQL?	C304.2	R
9	Differentiate SQL and NoSQL.	C304.2	U
10	What is column family?	C304.2	R

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q.No	Questions	CO	Skills
11	What is the relationship between cloud and Big data?	C304.1	U
	Or		
12	Discuss about web analytics in detail.	C304.1	R
13	Explain the types of NoSQL in detail.	C304.2	R
	Or		
14	Explain NoSQL features, Advantages and Disadvantages.	C304.2	U

Part – C (Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Discuss Big data application in detail.	C304.1	U
	Or		
16	Explain Mobile BI in detail.	C304.1	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty. A.SRIDEVI

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – III			Date/ Session	02.11.2023	Marks	50
Course code	CCS334	Course Title	BIG DATA ANALYTICS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Sem/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What do you mean by MapReduce?	C304.4	R
2	Name some key concept of Hadoop.	C304.4	U
3	List out the key concept related to MapReduce.	C304.4	U
4	What is the use of local test?	C304.4	R
5	Name the types of Hadoop Scheduler.	C304.4	U
6	List out the failures in YARN.	C304.4	U
7	Differentiate HBASE and HDFS.	C304.5	U
8	What is HQL?	C304.6	R
9	What is a meta store in HIVE?	C304.6	U
10	Mention key components of HIVE Architecture.	C304.6	U

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q.No	Questions	CO	Skills
11	Explain YARN architecture with a neat diagram.	C304.4	U
	Or		
12	Explain a anatomy of MapReduce job to run.	C304.4	R
13	Explain HIVE architecture with a neat diagram.	C304.6	U
	Or		
14	Explain HBASE architecture with a neat diagram.	C304.5	U

Part – C (Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Explain HIVE DML commands.	C304.6	U
	Or		
16	Explain HBASE clients.	C304.5	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty. A.SRIDEVI

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - I			Date/ Session	29.08.2023	Marks	50
Course code	CCS335	Course Title	Cloud Computing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is a Hybrid cloud?	C305PE1V31.1	R
2	Mention the characteristics and features of the cloud	C305PE1V31.1	R
3	Differentiate Public cloud and Private cloud	C305PE1V31.1	U
4	Summarize the benefits and drawbacks of using “Platform as a Service”	C305PE1V31.1	U
5	Outline the key challenges associated in the process of storing images in cloud.	C305PE1V31.1	R
6	List the architectural design challenges in cloud environment.	C305PE1V31.1	R
7	Outline the main services that are offered by AWS.	C305PE1V31.4	R
8	Identify the development technologies currently supported by AppEngine.	C305PE1V31.4	R
9	Give some of the application of GAE.	C305PE1V31.4	R
10	List the key components of Azure service platform.	C305PE1V31.4	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Outline the various deployment models of cloud with neat sketch and identify which among them could be applied to formulate cloud structure for a small firm.	C305PE1V31.1	U
	Or		
12	Outline the various service models of cloud with neat sketch and explain.	C305PE1V31.1	U
13	Draw the architecture of GAE and explain its functionality in detail.	C305PE1V31.4	R
	Or		
14	Illustrate the i) Functional Modules of GAE ii. Discuss in detail about GAE Applications	C305PE1V31.4	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain about the NIST cloud Computing Reference Architecture.	C305PE1V31.1	R
	Or		
16	Write a short note on i) Amazon AWS Cloud ii)Microsoft Azure	C305PE1V31.1	R

Bloom’s Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member: Dr.S.Ravimaran,Prof./AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - III			Date/ Session	09.11.2023	Marks	50
Course code	CCS335	Course Title	Cloud Computing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Virtualization.	C305PE1V 31.2	R
2	Differentiate FULL and PARA Virtualization.	C305PE1V 31.2	U
3	Outline the requirements of Virtual Machines.	C305PE1V 31.2	U
4	What is Type 2 Hypervisor?	C305PE1V 31.2	R
5	Illustrate the Taxonomy of Virtual Machines.	C305PE1V 31.2	R
6	What is Storage Virtualization in Cloud?	C305PE1V 31.3	R
7	What are the different types of Desktop Virtualization	C305PE1V 31.3	R
8	Compare and Contrast VM and Container.	C305PE1V 31.3	U
9	List the various components of Docker Container.	C305PE1V 31.3	R
10	Outline the various operations performed with Docker Container	C305PE1V 31.3	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the various types of virtualization with suitable illustrations.	C305PE1 V31.2	R
	Or		
12	Write a Short Note on a) Taxonomy of VM b) Hypervisor	C305PE1 V31.2	R
13	Explain how Desktop and Network Virtualization has been carried out in cloud platform.	C305PE1 V31.3	R
	Or		
14	Explain Briefly about Storage and Application Virtualization	C305PE1 V31.3	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the role of Docker in container creation in detail	C305PE1 V31.3	R
	Or		
16	Write a short note on a) Docker Images b) Docker Repositories	C305PE1 V31.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member: Dr.S.Ravimaran,Prof./AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - III			Date/ Session	24.04.2024	Marks	50
Course code	CCS336	Course Title	CLOUD SERVICE MANAGEMENT			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024 (EVEN)	
Year/	III	Semester/ Section	VI	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define perceived value.	C310PE3V33.5	R
2	What is predictable revenue?	C310PE3V33.5	AZ
3	Difference between cross-selling and upselling.	C310PE3V33.5	R
4	What is CapEx?	C310PE3V33.5	R
5	Define OpEx.	C310PE3V33.5	A
6	Define IT governance.	C310PE3V33.6	U
7	What is IAM?	C310PE3V33.6	R
8	What is global reach?	C310PE3V33.6	R
9	Define innovation and agility.	C310PE3V33.6	AZ
10	What is remote collaboration?	C310PE3V33.6	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Discuss about procurement of cloud based services **(10)**	C310PE3V33.5	U
	Or		
12	Explain about cloud cost models **(10)**	C310PE3V33.5	U
13	Discuss about capex vs open shift **(10)**	C310PE3V33.5	U
	Or		
14	Give a brief notes about subscription based charging **(10)**	C310PE3V33.5	A

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain Cloud governance frame work and structure (10)	C310PE3V33.6	U & A
	Or		
16	Discuss briefly about cloud service model risk matrix. (10)	C310PE3V33.6	U & A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member:A.Kayal,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Computer Science and Engineering

Internal Assessment Test - I			Date/ Session	09.09.2023	Marks	50
Course code	CCS341	Course Title	Data Warehousing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	05	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is data warehousing?	C306PE2V34.1	U
2	What are all the components of data warehousing?	C306PE2V34.1	R
3	What are the different tools used for data warehousing?	C306PE2V34.1	R
4	What are the main tasks performed in staging area?	C306PE2V34.1	R
5	What are the sources of data warehousing?	C306PE2V34.1	U
6	Mention the key features of modern data warehouse.	C306PE2V34.1	R
7	What is delivery process in data warehousing	C306PE2V34.2	R
8	Compare Top-down and Bottom-up approach.	C306PE2V34.2	U
9	List out the advantages of ETL.	C306PE2V34.2	U
10	What is data modeling life cycle	C306PE2V34.2	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	i) Difference between operational database and data warehouse ii) Explain in detail about autonomous data warehouse	C306PE2V34.1	U
	Or		
12	Explain in detail about the different components of data warehousing	C306PE2V34.1	R
13	Explain in detail about three tier data warehouse architecture	C306PE2V34.1	R
	Or		
14	Explain in detail about modern data warehouse	C306PE2V34.1	U

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	i) Difference between ETL and ELT ii) What are the types of data warehousing	C306PE2V34.2	U
	Or		
16	Explain in detail about data warehouse Modeling and its life cycle	C306PE2V34.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty Members: Ms. G.Nithyalakshmi, AP/AI & DS

Saranathan College of Engineering, Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - I			Date/ Session	08.11.2023	Marks	50
Course code	CCS341	Course Title	Data Warehousing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	05	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the elements of dimensional data model?	C306PE2V34.4	R
2	What is data cube?	C306PE2V34.4	R
3	What are steps involved in dimensional modeling?	C306PE2V34.4	U
4	Compare star schema vs snowflake schema	C306PE2V34.4	U
5	Explain about two common types of schema design used in data warehousing	C306PE2V34.4	U
6	Explain any two types of data base parallelism	C306PE2V34.4	R
7	Explain in short system configuration manager	C306PE2V34.5	R
8	Explain in short system scheduling manager	C306PE2V34.5	R
9	Explain 'event monitoring and logging' in system event manager	C306PE2V34.5	U
10	What are the functions of warehouse manager?	C306PE2V34.5	U

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the key principles and objectives of dimensional modeling	C306PE2V34.4	R
	Or		
12	Explain about the advantages and disadvantages of fact constellation schema	C306PE2V34.4	U
13	Ecplain about the types of process architecture	C306PE2V34.4	R
	Or		
14	Explain about the data warehouse tools	C306PE2V34.4	U

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain about the key responsibilities of system scheduling manager	C306PE2V34.5	U
	Or		
16	Explain about key functions of Load manager and its architecture	C306PE2V34.5	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty Members: Ms. G.Nithyalakshmi, AP/AI & DS

Saranathan College of Engineering, Tiruchirappalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - III			**Date/ Session**	02-03-2024 / FN	**Marks**	50
Course Code	**CCS336**	**Course Title**	**CLOUD SERVICE MANAGEMENT**			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024 (EVEN SEM)	
Year	III	**Semester**	VI	**Department**	AI & DS	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	**Questions**	**CO**	**Skills**
1	Define cloud Ecosystem.	C310PE3V33.1	R
2	What is cloud service management?	C310PE3V33.1	AZ
3	Explain CDN.	C310PE3V33.1	R
4	What is Server less computing?	C310PE3V33.1	R
5	Difference between hybrid and multi cloud.	C310PE3V33.1	A
6	What is SLA?	C310PE3V33.2	U
7	What is change management?	C310PE3V33.2	R
8	Define demand queueing.	C310PE3V33.2	R
9	What is resource allocation policy?	C310PE3V33.2	AZ
10	List out the key consideration in IT capacity and utilization.	C310PE3V33.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	**Questions**	**CO**	**Skills**
11	Discuss Cloud service Deployment models.**(10)**	C310PE3V33.1	U
	(OR)		
12	Explain briefly about cloud service models with neat diagram. **(10)**	C310PE3V33.1	U U
13	Explain cloud strategy management framework**. (10)**	C310PE3V33.2	U
	(OR)		
14	Give a brief notes about Risk management**. (10)**	C310PE3V33.2	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	**Questions**	**CO**	**Skills**
15	Explain Cloud policy.	C310PE3V33.2	U&A
	(OR)		
16	Discuss briefly about cloud service architecture.	C310PE3V33.2	U&A

*Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.*Faculty In-Charge A.kayal-AP/AI&DS

Saranathan College of Engineering, Tiruchirappalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - II			**Date/ Session**	27-03-2024 / FN	**Marks**	50
Course Code	**CCS336**	**Course Title**	**CLOUD SERVICE MANAGEMENT**			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024 (EVEN SEM)	
Year	III	**Semester**	VI	**Department**	AI & DS	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	**Questions**	**CO**	**Skills**
1	Define Building Blocks.	C310PE3V33.3	R
2	What is data migration?	C310PE3V33.3	AZ
3	What is Baseline analysis?	C310PE3V33.3	R
4	List out the steps involved in cloud migration process.	C310PE3V33.3	R
5	Define Multi cloud management.	C310PE3V33.3	A
6	Define cloud service planning and its steps.	C310PE3V33.3	U
7	Define the characteristics of Freemium.	C310PE3V33.4	R
8	Difference between pay-as-you go and Reserved instances.	C310PE3V33.4	R
9	What is User based Pricing?	C310PE3V33.4	AZ
10	Differentiate Pay per Reservation and Pay per User.	C310PE3V33.4	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	**Questions**	**CO**	**Skills**
11	Discuss about Cloud service development life cycle **(10)**	C310PE3V33.3	U
	(OR)		
12	Explain the basics of cloud service design. **(10)**	C310PE3V33.3	U U
13	Explain Benchmarking of cloud services. **(10)**	C310PE3V33.3	U
	(OR)		
14	Give a brief notes about operation management**(10)**	C310PE3V33.3	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	**Questions**	**CO**	**Skills**
15	a)Explain Pricing models for cloud services. (5) b)Explain about Freemium (5)	C310PE3V33.4	U&A
	(OR)		
16	Discuss briefly about Pay per Reservation and Pay per User pricing models.	C310PE3V33.4	U&A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question. Faculty In-Charge A.kayal-AP/AI&DS

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – I			Date/ Session	26.02.2024	Marks	50
Course code	CCS365	Course Title	SOFTWARE DEFINED NETWORKS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Sem/ Section	VI	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Differentiate SDN Network and Traditional Network.	C311PE4V36.1	AZ
2	What are the advantages of SDN?	C311PE4V36.1	AZ
3	What are characteristics of SDN?	C311PE4V36.1	U
4	Define SDN application layer.	C311PE4V36.1	R
5	What is the main function of SDN Data plane?	C311PE4V36.1	R
6	What is SouthBound API?	C311PE4V36.2	R
7	What are the SDN data plane protocols?	C311PE4V36.2	U
8	What are all tables available in Openflow Switch?	C311PE4V36.2	R
9	What are all the types of port in openflow?	C311PE4V36.2	R
10	Define Ryu controller.	C311PE4V36.2	U

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q.No	Questions	CO	Skills
11	Explain Evolving Network Requirements	C311PE4V36.1	U
	Or		
12	Explain SDN Approach	C311PE4V36.1	R
13	Explain flow table in openflow protocol.	C311PE4V36.2	U
	Or		
14	Explain OpenDaylight controller.	C311PE4V36.2	U

Part – C (Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Explain SDN Data plane in detail.	C311PE4V36.1	R
	Or		
16	Explain SDN control plane in detail.	C311PE4V36.1	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty. A.SRIDEVI

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – III			Date/ Session	22.04.2024	Marks	50
Course code	CCS365	**Course Title**	SOFTWARE DEFINED NETWORKS			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year/	III	**Sem/ Section**	VI	**Department**	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define CFI.	C311PE4V36.5	AZ
2	What is openflow VLAN support?	C311PE4V36.5	AZ
3	Define Container.	C311PE4V36.5	U
4	What is the use of NFV?	C311PE4V36.5	R
5	Define PoP.	C311PE4V36.5	R
6	What is mean by VNF forwarding graph?	C311PE4V36.5	R
7	What is the NFV principle?	C311PE4V36.5	U
8	What are the different types of NFV domain?	C311PE4V36.6	R
9	Differentiate functional block interface and container interface.	C311PE4V36.6	R
10	Define NFV MANO.	C311PE4V36.6	U

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q.No	Questions	CO	Skills
11	Explain VLAN.	C311PE4V36.5	U
	Or		
12	Explain VLAN frame format.	C311PE4V36.5	R
13	Explain the use of NFV with a simple example.	C311PE4V36.5	U
	Or		
14	Explain NFV Benefits and Requirements.	C311PE4V36.5	U

Part – C (Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Explain NFV reference architecture.	C311PE4V36.6	R
	Or		
16	Explain the NFV Management and Orchestration architecture.	C311PE4V36.6	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty. A.SRIDEVI

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	28.02.24/ FN	Marks	50
Course code	CCS372	Course Title	Virtualization			
Batch No.		Duration	90 mins	Academic Year	2023-2024 (EVEN)	
Year	III	Semester	VI	Department	AI&DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Virtualization.	C312PE5V32.1	R
2	Differentiate cloud computing and virtualization.	C312PE5V32.1	U
3	Give the various characteristics of virtualization.	C312PE5V32.1	A
4	Differentiate between full virtualization and para virtualization.	C312PE5V32.1	U
5	What is a hypervisor?	C312PE5V32.1	R
6	What is host machine and guest machine?	C312PE5V32.1	U
7	Define virtual machine.	C312PE5V32.2	U
8	What are the types of server virtualization?	C312PE5V32.2	U
9	What is virtual machine consolidation?	C312PE5V32.2	R
10	Give the uses of virtual machine consolidation.	C312PE5V32.2	A

Part – B (Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	What is virtualization? Give the needs of virtualization with its reference model.	C312PE5V32.1	R
	OR		
12	Define Hardware virtualization. What are the various types of Hardware virtualization? Explain in detail.	C312PE5V32.1	U
13	Define Hypervisor. What are the various types of hypervisor? Explain.	C312PE5V32.1	U
	OR		
14	What are the various characteristics of virtualization? State its limitations.	C312PE5V32.1	AZ

Part – C (Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Define Server virtualization. What are the types of server virtualization?	C312PE5V32.2	R
	OR		
16	Elaborate on the business cases for server virtualization. Give its uses.	C312PE5V32.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Name of the Staff : Ms.T. Anita Dorothy

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	28.03.24/FN	Marks	50
Course code	CCS372	Course Title	Virtualization			
Batch No.		Duration	90 mins	Academic Year	2023-2024 (EVEN)	
Year	III	Semester	VI	Department	AI&DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define server consolidation.	C312PE5V32.2	R
2	What is a snapshot?	C312PE5V32.2	U
3	What is network virtualization?	C312PE5V32.3	U
4	How virtual switches are configured?	C312PE5V32.3	A
5	Define SDN.	C312PE5V32.3	R
6	How to manage and configure VLANs?	C312PE5V32.3	A
7	What are the functions of network virtualization?	C312PE5V32.3	U
8	Give the differences between LAN and VLAN.	C312PE5V32.3	A
9	Define cloud-based network virtualization.	C312PE5V32.3	R
10	Differentiate WAN and wireless WAN.	C312PE5V32.3	A

Part – B (Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Define Desktop virtualization. Discuss the factors to consider while selecting a desktop virtualization. Give its benefits and limitations.	C312PE5V32.2	U
	OR		
12	Discuss in detail the various types of desktop virtualization.	C312PE5V32.2	R
13	What is network virtualization? Explain the functions, advantages and limitations of network virtualization.	C312PE5V32.3	U
	OR		
14	Discuss the various tools and technologies used in network virtualization, and how these tools facilitate the operation of virtual networks.	C312PE5V32.3	AZ

Part – C (Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Explain the concept of VLAN, it purpose and how it is used to segment a physical LAN into multiple VLANs to improve performance, security and traffic isolation.	C312PE5V32.3	U
	OR		
16	Discuss the concept of WAN virtualization and SD-WAN, its benefits, functions and how it applies virtualization concepts to WANs to enhance network efficiency and management.	C312PE5V32.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Name of the Staff :Ms.T. Anita Dorothy

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	25.04.24/FN	Marks	50
Course code	CCS372	Course Title	Virtualization			
Batch No.		Duration	90 mins	Academic Year	2023-2024 (EVEN)	
Year	III	Semester	VI	Department	AI&DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define memory virtualization.	C312PE5V32.4	R
2	What is RAID?	C312PE5V32.4	U
3	List the types of storage virtualization.	C312PE5V32.4	U
4	Define SAN and NAS.	C312PE5V32.4	A
5	What are the differences between block and file storage virtualization?	C312PE5V32.4	R
6	Name a tool used for storage virtualization.	C312PE5V32.4	A
7	Give the applications of VMware.	C312PE5V32.5	U
8	What is Microsoft Hyper-V virtualization?	C312PE5V32.5	A
9	Define Google virtualization.	C312PE5V32.5	R
10	What is IBM PowerVM virtualization?	C312PE5V32.5	A

Part – B (Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Discuss in detail about storage virtualization and its types.	C312PE5V32.4	R
	OR		
12	Evaluate the impact of storage virtualization on data security.	C312PE5V32.4	U
13	Analyze the address space remapping in storage virtualization using RAID technology.	C312PE5V32.4	AZ
	OR		
14	Discuss the features of VMware and its applications.	C312PE5V32.5	R

Part – C (Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Evaluate the significance of Google virtualization in industry.	C312PE5V32.5	U
	OR		
16	Analyze Amazon AWS as a case study, showcasing the successful implementation of virtualization tool.	C312PE5V32.5	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Name of the Staff :Ms.T. Anita Dorothy

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - I			Date/ Session	29.02.2024	Marks	50
Course code	CCW332	Course Title	Digital Marketing			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024 (EVEN)	
Year/	III	Semester/ Section	VI	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Digital Marketing.	C313PE6V55.1	R
2	Difference between Marketing and Selling.	C313PE6V55.1	U
3	List the characteristics of Market Space.	C313PE6V55.1	R
4	List the 7Ps of digital marketing mix.	C313PE6V55.1	R
5	Write the importance or advantages of digital marketing.	C313PE6V55.1	R
6	What is an online value proposition?	C313PE6V55.1	R
7	What is value shift function?	C313PE6V55.1	R
8	Define Search Engine Optimization.	C313PE6V55.2	R
9	When to use long tail keywords and short tail keywords?	C313PE6V55.2	R
10	List the benefits of SEO.	C313PE6V55.2	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Discuss in detail about Understanding Digital Business Strategy	C313PE6V55.1	R
	Or		
12	Discuss in detail about Customer Development Strategy (STP 2.0)	C313PE6V55.1	R
13	Explain in detail about REAN Marketing Engagement Framework	C313PE6V55.1	R
	Or		
14	Explain in detail about ASCOR Digital Marketing Framework	C313PE6V55.1	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about On – Page SEO Technique.	C313PE6V55.2	R
	Or		
16	Explain in detail about Off-Page SEO Technique.	C313PE6V55.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member:Mr.P.DineshKumar,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - II			Date/ Session	01.04.2024	Marks	50
Course code	CCW332	Course Title	Digital Marketing			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024 (EVEN)	
Year/	III	Semester/ Section	VI	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Search Engine Marketing?	C313PE6V55.2	R
2	Compare SEO and SEM.	C313PE6V55.2	U
3	Define Crawling.	C313PE6V55.2	R
4	Define Indexing.	C313PE6V55.2	R
5	Define PPC adevertising.	C313PE6V55.2	R
6	List the types of Email Marketing.	C313PE6V55.3	R
7	List the strategies and techniques for effective lead generation.	C313PE6V55.3	R
8	What's the difference between a hard bounce and a soft bounce?	C313PE6V55.3	R
9	What are the benefits of Mobile Marketing?	C313PE6V55.3	R
10	What is Location Based Marketing?	C313PE6V55.3	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Discuss in Detail about PPC advertising with example.	C313PE6V55.2	U
	Or		
12	Discuss in detail about Search Engine Marketing.	C313PE6V55.2	U
13	Explain in detail about Email Marketing and its types.	C313PE6V55.3	R
	Or		
14	Explain in detail about Lead Generation in Email marketing.	C313PE6V55.3	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about Mobile Marketing.	C313PE6V55.3	R
	Or		
16	Explain in detail about Location Based Marketing.	C313PE6V55.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member:Mr.P.DineshKumar,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - III			Date/ Session	29.04.2024	Marks	50
Course code	CCW332	Course Title	Digital Marketing			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024 (EVEN)	
Year/	III	Semester/ Section	VI	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Social Media Marketing?	C313PE6V55.4	R
2	What are the five pillars of social media marketing?	C313PE6V55.4	R
3	List any 4 ways to leverage social media for your business.	C313PE6V55.4	R
4	Define Social Media Benchmarking.	C313PE6V55.5	R
5	What are the benefits of Engagement Marketing?	C313PE6V55.5	R
6	What is influencer marketing?	C313PE6V55.5	R
7	List the benefits of Digital Transformation.	C313PE6V55.6	R
8	Define Business Model Transformation.	C313PE6V55.6	R
9	What are the key challenges of digital transformation?	C313PE6V55.6	R
10	Why channel attribution is important?	C313PE6V55.6	U

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Discuss in detail about Five pillars of Social Media Marketing.	C313PE6V55.4	U
	Or		
12	Explain in detail about Leveraging Social Media for Brand Conversations and Buzz.	C313PE6V55.4	U
13	How social Media campaigns are performed?	C313PE6V55.5	R
	Or		
14	How Engagement Marketing is done on social media?	C313PE6V55.5	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the concept of digital transformation in detail.	C313PE6V55.6	R
	Or		
16	Explain the concept of Channel attribution in detail.	C313PE6V55.6	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member:Mr.P.DineshKumar,AP/AI & DS

Saranathan College of Engineering, Tiruchirapalli
Department of Artificial Intelligence and Data Science

Internal Assessment Test - I			Date / Session	05.09.23 / FN	Marks	50
Course code	CS3551	Course Title	Distributed Computing			
Batch No.		Duration	90 mins	Academic Year	2023-2024 (ODD)	
Year	III	Semester/ Section	V/ A	Department	AI&DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Distributed Systems.	C303.1	U
2	State the difference between Synchronous and Asynchronous Execution?	C303.1	R
3	Write the issues arising from Distributed Systems?	C303.1	R
4	What are the various types of events in a process?	C303.1	R
5	Define Causal Ordering.	C303.1	U
6	Define processor synchrony.	C303.1	U
7	Give the differences between physical clock and logical clock.	C303.2	R
8	What is NTP?	C303.2	R
9	What is system model?	C303.2	R
10	Define a consistent global state.	C303.2	U

Part – B (Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Define distributed systems. What are the significant issues and challenges of the distributed systems?	C303.1	AZ
	OR		
12	Briefly explain Message Passing System Vs Shared Memory Systems.	C303.1	AZ
13	Explain about System model and the consistent global state in detail.	C303.2	AZ
	OR		
14	Elaborate and discuss about Chandy – Lamport algorithm with an example.	C303.2	AZ

Part – C (Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Differentiaite and explain in detail about synchronous and asynchronous executions.	C303.1	AZ
	OR		
16	What are the various primitives for distributed communication? Explain in detail.	C303.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty Member:Mrs.T.Anita Dorothy, AP / AI&DS

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	07.11.23/ FN	Marks	50
Course code	CS3551	Course Title	Distributed Computing			
Batch No.		Duration	90 mins	Academic Year	2023-2024 (ODD)	
Year	III	Semester	V	Department	AI&DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What do you mean by local checkpoints?	303.4	U
2	What is the drawback of a checkpoint based rollback recovery approach?	303.4	U
3	Compare Coordinated Check Pointing versus Uncoordinated Check Pointing.	303.4	A
4	Define Orphan Messages.	303.4	R
5	List out the different types of Failure Models.	303.4	C
6	Define cloud computing.	303.5	R
7	Give the characteristics of cloud.	303.5	A
8	What are the design challenges of cloud computing?	303.5	C
9	What is virtualization?	303.6	R
10	Define replication and monitoring.	303.6	R

Part – B (Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Discuss in detail about Co-ordinated Checkpointing based Rollback Recovery Scheme with suitable example.	303.4	C
	OR		
12	Discuss about Agreement in synchronous system with failures.	303.4	C
13	Discuss in detail about Consensus algorithm for Byzantine failures in synchronous system.	303.4	C
	OR		
14	Discuss in detail about Rollback Recovery Scheme (Juang Venkatesan) with suitable example.	303.4	C

Part – C (Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about Cloud Deployment Models.	303.5	AZ
	OR		
16	Explain in detail about various Cloud Services and Platforms.	303.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Name of the Staff : Ms.T. Anita Dorothy

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - II			Date/ Session	07.05.2024/FN	Marks	50
Course code	CS3591	Course Title	Computer Networks			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	II	Semester/ Section	IV	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What do you mean by slow start in TCP connection?	C214.2	R
2	How do fast retransmit mechanism of TCP works ?	C214.2	U
3	Define Congestion Control.	C214.2	R
4	Name the techniques and policies that avoids congestion.	C214.2	R
5	Change the following IPV4 addresses from binary notation to dotted decimal notation 10000001 00001011 00001011 11101111	C214.3	A
6	Draw the sketch of IPV6 packet header.	C214.3	U
7	Differentiate Packet Switching and Circuit Switching.	C214.3	U
8	What are the different types of IP addressing?	C214.3	R
9	Define Subnetting.	C214.3	R
10	What is payload in network management?	C214.3	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail the various congestion control mechanisms	C214.2	R
	Or		
12	Explain Congestion Avoidance using DECbit and RED in Transport Layer with an Example.	C214.2	R
13	(i) Discuss the IP address methods. (7) (ii) Compare IPV4 and IPV6 (3)	C214.3	R
	Or		
14	Consider a network scenario and explain the function of ARP and RARP protocols with frame formats.	C214.3	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the short notes on Packet Switching with relevant examples	C214.3	U
	Or		
16	Explain in detail about Internet Protocol with relevant Packet Format.	C214.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C311.1:36 marks, C311.2:14 marks

Faculty Member: Dr.S.Ravimaran/Prof.&Head/AI & DS
T. Anita Dorothy AP/AI&DS

Saranathan College of Engineering, Tiruchirapalli

Internal Assessment II			Date/Session	26.03.24 / FN	Marks	50
Course code	CS3691	Course Title	Embedded Systems and IoT			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	06 / A&B	Department	CSE/AIDS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Write about technique used to avoid priority inversion.	309.2	U
2	What do you meant by priority inheritance?	309.2	U
3	Compare RMS and EDF algorithm.	309.2	AZ
4	List features of RTOS. Why it is needed in embedded system design.	309.2	R,U
5	Is all embedded system are real time system? Justify your answer with example.	309.2	AZ
6	Write brief notes on sketch and future syntax elements of Arduino programming	309.3	R
7	List bitwise operators and pointer access operators used in Arduino.	309.3	R
8	What is meant by sensor and actuator? Give example.	309.3	R
9	Give characteristic of IoT and its importance in all fields.	309.3	R,U
10	Write sketch structure used in Arduino program.	309.3	R

Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Design a microcontroller system using 8051, 16 Kbytes of ROM, 32Kbytes of RAM. Interface the memory with 8051 ROM with starting address 8000H and RAM with starting address 0000H.	309.2	U, A
	(OR)		
12	Explain any two priority based scheduling algorithm used in Real time system with illustration.	309.2	R,U
13	Explain in detail about IoT components. (6) Write a sketch to toggle LED using Arduino.(4)	309.3	R,AZ
	(OR)		
14.	Write aArduino sketch to measure the temperature in environment and display it in LCD display with neat connection diagram.	309.3	A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Check whether the given task set is feasibly schedulable using RMS and EDF. And count the no of context switching occur in both algorithm Process / Execution time / Periodicity P1 / 2 / 5 P2 / 2 / 6 P3 / 6 / 10	309.2	AZ,A
	(OR)		
16	Write an Embedded C program using 8051 to toggle all the bits in port 2 continuously for every 500 ms delay. (Use Timer1 mode 1 to create delay.) (XTAL frequency – 11.0592MHz)	309.2	A

Saranathan College of Engineering, Tiruchirapalli

Internal Assessment III			Date/Session	23.04.24 / FN	Marks	50
Course code	CS3691	Course Title	Embedded Systems and IoT			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	06 / A&B	Department	CSE/AIDS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the role of GPS in IoT applications?	309.4	U
2	Write short notes on IoT communication APIs.	309.4	U
3	What are the various communication models used in IoT.	309.4	R
4	Compare SPI and I2C communication protocol.	309.4	A
5	Give advantage and disadvantage of Wi Fi.	309.4	U
6	Why system integration stage of embedded system design life cycle is considered as challenging justify.	309.5	AZ
7	List some sensors used in automated vehicle and their uses.	309.5	R
8	Give some challenges in IoT based smart healthcare.	309.5	U
9	How IoT is helpful in agriculture?	309.5	U
10	Name some wearable electronics.	309.5	R

Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	.Explain GSM architecture in detail	309.4	U,R
	(OR)		
12	Explain Bluetooth and ZigBeearchitecture with pros and cons	309.4	R,U
13	Explain in detail about Raspberry pi architecture and its interfacing	309.4	R
	(OR)		
14.	Explain how GPIO pins can be accessed in Raspberry pi and write an example code using Python or Embedded C to send and receive data from GPIO pins.	309.4	A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Write the case study on IoT based smart surveillance system.	309.5	AZ,A
	(OR)		
16	Explain the embedded system complete design life cycle with illustration.	309.5	R,A

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - I			Date/ Session	04.09.2023	Marks	50
Course code	CW3551	Course Title	Data and Information security			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is information security?	C302.1	U
2	What is computer security and network security?	C302.1	R
3	List out the components of information system.	C302.1	U
4	List the names of security goals.	C302.1	R
5	What is SDLC?	C302.1	U
6	What are the basic objective of NSTISSC model?	C302.1	U
7	What is vulnerability?	C302.1	R
8	State the difference between threats and attacks.	C302.2	U
9	Define security policy.	C302.2	R
10	Define malicious software.	C302.2	U

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain about NSTISSC model.	C302.1	R
	Or		
12	Explain about the phases of SDLC and secure SDLC.	C302.1	U
13	Explain briefly about legal,ethical and professional issues.	C302.1	AZ
	Or		
14	Discuss briefly about Access control matrix.	C302.1	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Elaborate the history of information security.	C302.2	U
	Or		
16	Explain the overview of computer security.	C302.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C211.4:20 marks, C211.5:10 marks, C211.6:10.

Faculty Members:Ms.A.kayal.,AP/AI & DS

Saranathan College of Engineering,Tiruchirapalli

Department of Artificial Intelligence and Data Science

Internal Assessment Test - II			Date/ Session	05.10.2023	Marks	50
Course code	CW3551	Course Title	Data and Information security			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	AI & DS	

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define security policy.	C302.2	U
2	What is blp model?	C302.2	R
3	Differentiate MAC and hash function.	C302.3	U
4	What is hash in cryptography?	C302.3	R
5	What mathematical problem is behind security of elgamal cryptosystem?	C302.3	U
6	What are the advantages of key distribution?	C302.3	U
7	What is the use of digital signature?	C302.3	R
8	Write any 2 differences between MD4 and secure hash algorithm.	C302.3	U
9	What is kerberos?	C302.3	R
10	What is x.509 certificate?	C302.3	U

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain security policies.	C302.2	R
	Or		
12	Differentiate briefly confidentiality and integrity security policies.	C302.2	U
13	Explain Digital signature algorithm.	C302.3	AZ
	Or		
14	Compare uses of MAC and hash function and represent them using appropriate diagram.	C302.3	R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain kerberos authentication mechanism with suitable diagram.	C302.3	U
	Or		
16	i. Explain the format of x.509 certificate.(5m) ii. Explain Secure hash algorithm.(5m)	C302.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.C211.4:20 marks, C211.5:10 marks, C211.6:10.

Faculty Members:Ms.A.kayal.,AP/AI & DS

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	29/04/24	Marks	50
Course code	GE3451	**Course Title**	Environmental Science & sustainability			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 – 2024	
Year	II	**Semester/ Section**	IV	**Department**	Common to all	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Mention the sources responsible for water pollution	3	U
2	What are point sources and non-point sources?	3	R
3	Write any four problems caused by high saline soils.	3	U
4	When a sound does cause noise pollution?	3	A
5	What are the control sources of noise pollution?	3	R
6	Give a brief description about the e-waste management.	3	U
7	What are the objectives of forest act?	3	R
8	Mention a few drawbacks of pollution related act.	3	R
9	Distinguish between renewable and non-renewable energy sources.	4	U
10	List down advantages and disadvantages of GTE	4	A

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Explain the causes, effects and preventive measures of soil pollution. (10)	3	U
	Or		
12	Discuss the disposal methods involved in solid waste management. (10)	3	R
13	Explain the steps involved in managing hazardous waste. (10)	3	A
	Or		
14 a	With a suitable case study explain on the occupational health and safety management system. (6)	3	U
14 b	Discuss environmental protection act. (4)	3	U
15	Enumerate on the energy harnessing based on the ocean energy resources and tidal energy conversion and its applications. (10)	4	A
	Or		
16	Discuss in a suitable manner about the origin and power plants of geothermal energy. (10)	4	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	R.P. AISWARIYA			Year / Semester / Section	II / III / A
Batch No.	258007	Date / Session	02.11.23 / FN	Department	AI & DS
Course Code	AD3351	Course Title	DESIGN AND ANALYSIS OF ALGORITHMS		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	dhanu dhiri 2/11/23		C. GNANADEEPICAN		

INSTRUCTIONS TO THE CANDIDATES :

Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
Write your Batch Number in the Question Paper.
Use both sides of the paper for answering questions.
The answer book contains sufficient pages and no additional sheets will be given.
Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	1	11					
2	✓	2	12	✓	4+1	✓	4	8+1
3	✓	2	13					
4	✓	1	14	✓	6	✓	4	10
5	✓	2	15	✓	6	✓	4	10
6	✓	1	16					
7	✓	0					Total	29
8	✓	2						
9	✓	1						
10	✓	1						
Total		13						

49

Grand Total

T. ANITA DOROTHY

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	30	20					50
Marks Obtained	25	15					42

QAC Audit - Remarks

NIL

QAC 23/11/23

Name and Signature of the QAC member

DESIGN & ANALYSIS OF ALGORITHM

ASSIGNMENT - 1

TITLE	MARKS	
CONTENT	6	5
PRESENTATION	2	1
SUBMISSION	2	2
		8

8

QAC

23/11/23

By:

AASIS MOHAMED . A

258003

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	R.P. AISWARIYA			Year / Semester / Section	II / III / A
Batch No.	258007	Date / Session	02.12.23 / FN	Department	AI & DS
Course Code	AD3351	Course Title	DESIGN AND ANALYSIS OF ALGORITHMS		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 19
Name and Signature of the Invigilator with date	KARTHIK.R				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	1	13	✓	9			9
4	✓	2	14					
5	✓	2	15					
6	✓	2	16	✓	8			8
7	✓	2					Total	26
8	✓	1						
9	✓	2						
10	✓	2						
Total		18						

44
Grand Total

T. ANITA DOROTHY 2/12/23
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted			30	20			50
Marks Obtained			27	17			44

QAC Audit - Remarks

NIL
QAC

Name and Signature of the QAC member

DESIGN AND ANALYSIS OF ALGORITHM.

ASSIGNMENT - 2

CONTENT	6	6
SUBMISSION	2	2
PRESENTATION	2	2
TOTAL	10	10

Good!

QAC

20/11/25

M. ABINAYA

25E005

AIDS - 'A'

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	Aadish S			Year / Semester / Section	III / 5th / A
Batch No.	2580001	Date / Session	30/12/23 / FN	Department	AI&DS
Course Code	AD3351	Course Title	Design & Analysis of Algorithms		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	P.V.R 30/12/23		P.V.R JESH		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	4			4
3	✓	1	13					
4	✓	0	14	✓	5			5
5	✓	2	15	✓	3	✓	3	6
6	✓	2	16					
7	✓	1					Total	15
8	✓	2						
9	✓	2						
10		2						
Total		16	Grand Total 31				T. ANITA DOROTHY Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				16	16	18	50
Marks Obtained				9	9	13	31

QAC Audit - Remarks

NIL

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

12/4/24

ANSWER BOOK

Name	DHARSHINI. J			Year / Semester / Section	II / IV / "A"
Batch No.	258023	Date / Session	8.4.24 / FN	Department	AI&DS
Course Code	CS3591	Course Title	COMPUTER NETWORKS		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C						Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks		
1	✔	2	11	✔	8+1				8+1
2	✔	2	12						
3	✔	2	13	✔	8				8
4	✔	2	14						
5	✔	0	15	✔	7				7
6	✔	2	16						
7	✔	2						Total	23+1
8	✔	2							
9	✔	2							
10	✔	2							
Total		18	Grand Total		42	Name and Signature of the Examiner with date			T. ANITA DOROTHY

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	36	14					50
Marks Obtained	31	11					42

QAC Audit - Remarks

—

Dr. N. V. Sujeyadevi

Name and Signature of the QAC member

COMPUTER NETWORKS

ASSIGNMENT-1

CONTENT	6	6
PRESENTATION	2	2
SUBMISSION	2	2
		10

Good!

NAME : R.P. AISWARIYA

BATCH NO : 258007

DEPT: AI & DS - "A"

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	ANBU S.V.			Year / Semester / Section	II / IV / A
Batch No.	288012	Date / Session	09.05.24/AN	Department	AI & DS
Course Code	CS3591	Course Title	Computer Networks.		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 17
Name and Signature of the Invigilator with date	VAISHALI P 9/5/24				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	1	12					
3	✓	1	13	✓	3	✓	2	5
4	✓	2	14					
5	✓	2	15	✓	9			9
6	✓	2	16					
7	✓	2					Total	23
8	✓	2						
9	✓	1						
10	✓	1						
Total		16						

39
Grand Total

T. ANITA DOROTHY
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		18	32				50
Marks Obtained		15	24				39

QAC Audit - Remarks

NIL

22/5/24
(J. Sathis Parkan)
Name and Signature of the QAC member

COMPUTER NETWORKS

ASSIGNMENT - 2

Description	Marks Alloted	Marks obtained
Content	6	6
Submission	2	2
Presentation	2	2
		10

Good!

By :-
P. Kayhaaravasundarghandian
258046
AI 4 DS - 'A'

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	AATHITHIYAA.V			Year / Semester / Section	III/IV/A
Batch No.	258004	Date / Session	11-6-24	Department	AIDS
Course Code	CS3591	Course Title	COMPUTER NETWORKS.		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	T. ANITA DOROTHY 11/6/24				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	8			8
2	✓	2	12					
3	✓	1	13					
4	✓	2	14	✓				
5	✓	2	15					
6	✓	1	16	✓	5	✓	3	8
7	✓	1					Total	16
8	✓	2						
9	✓	1						
10	✓	—						
Total		14						

30
Grand Total

T. ANITA DOROTHY 11/6/24
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				30	20		50
Marks Obtained				17	13		30

QAC Audit - Remarks

NIL

J. Sathiabarkavi 20/6/24
(J. Sathiabarkavi)
Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	P. Ponmurugaiya			Year / Semester / Section	II / III / B
Batch No.	258072	Date / Session	04/11/2023 / FN	Department	AI & DS
Course Code	AD3391	Course Title	Database Design and Management		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 14
Name and Signature of the Invigilator with date	G. Nithyalakshmi C. Nithyal 4/11/23				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13	✓	4			4
4	✓	2	14					
5	✓	2	15					
6	✓	2	16	✓	7			7
7	✓	2					Total	20
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

40

Grand Total

G. Nithyal

Name and Signature of the Examiner with date

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes							
Marks allotted	30	20					50
Marks Obtained	23	17					40

QAC Audit - Remarks

QAC / NIL / K 24/2/24

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. Shalini			Year / Semester / Section	II / III / B
Batch No.	258096	Date / Session	05.12.2023/FN	Department	AI & DS
Course Code	AD3391	Course Title	Database Design and management		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 19
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	10			10
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	10			10
5	✓	2	15					
6	✓	2	16	✓	9			9
7	✓	2					Total	29
8	✓	2						
9	✓	2						
10	✓	2						
Total		20	Grand Total		49		Name and Signature of the Examiner with date	

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes		14	36				50
Marks allotted		13	36				49
Marks Obtained							

QAC Audit - Remarks

NIL

QAC

A. Thenmozhi 20/2/23

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	J. Pooja Sri			Year / Semester / Section	II / III / B
Batch No.	258074	Date / Session	03.01.2024 / FN	Department	AI & DS
Course Code	AD 3391	Course Title	Database Design and Management		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 17
Name and Signature of the Invigilator with date	Dr.N. PEERTHI ELIZABETH				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	9			9
5	✓	2	15					
6	✓	1	16	✓	10			10
7	✓	2					Total	28
8	✓	2						
9	✓	2						
10	✓	2						
Total		19	Grand Total		47		Name and Signature of the Examiner with date	G. Vitthyll

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes			20		14	16	50
Marks allotted			19		12	16	47
Marks Obtained							

QAC Audit - Remarks : NIL

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	M. AYSHA SUMIYA			Year / Semester / Section	III / VI / A
Batch No.	248010	Date / Session	5.9.23 / F.N	Department	AID 'B
Course Code	CB3551	Course Title	Distributed computing		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	P. Nigroshwar 5/9/23				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	9			9
5	✓	2	15	✓	8			9
6	✓	2	16					
7	✓	2					Total	27
8	✓	2						
9	✓	2						
10	✓	0						
Total		18						

45
Grand Total

T. ANITA DOROTHY 5/9/23
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	32	18					50
Marks Obtained	30	15					45

QAC Audit - Remarks

NIL

Name and Signature of the QAC member 16/9/23

DISTRIBUTED COMPUTING

ASSIGNMENT - I

16/9/23

DONE BY

A. NAFEES AHAMED

248036

'AI & DS'

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	A. Aashifa Parveen			Year / Semester / Section	III / V / A
Batch No.	248001	Date / Session	7/10/23 / FN	Department	AI+DS
Course Code	CS3551	Course Title	Distributed Computing		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	R. Aashifa R. Divya.				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	9			9
5	✓	1	15	✓	9			9
6	✓	2	16					
7	✓	2					Total	27
8	✓	2						
9	✓	2						
10	✓	2						
Total		19						

46
Grand Total

T. ANITA DOROTHY 9/10/23
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		18	32				
Marks Obtained		17	29				

QAC Audit - Remarks

-NIL-

19/10/23
Name and Signature of the QAC member

DISTRIBUTED COMPUTING

CS3551

ASSIGNMENT – 2

DESCRIPTION	MARKS ALLOTTED	MARKS OBTAINED
CONTENT	6	6
PRESENTATION	2	2
SUBMISSION	2	2
TOTAL	10	10

Good!

BAE 19/10/23

DONE BY...

A. AASHIFA PARVEEN

248001

AIDS III-YEAR "A" SEC

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	A. SUBHALAKSHMI			Year / Semester / Section	III / 05 / A
Batch No.	248051	Date / Session	07.11.23 / FN.	Department	AI & DS
Course Code	CS3551	Course Title	DISTRIBUTED COMPUTING.		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	P. RAMA BABU.		7.11.23		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	0	12					
3	✓	0	13	✓	8			8
4	✓	2	14					
5	✓	2	15	✓	9			9
6	✓	2	16					
7	✓	2					Total	26
8	✓	2						
9	✓	2						
10	✓	2						
Total		16						

42
Grand Total

T. ANITA DOROTHY
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				30	16	14	50
Marks Obtained				23	15	04	42

QAC Audit - Remarks

QAC - NIL 23/11/23

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Amarnath

Name	S. AMARNATH			Year / Semester / Section	III / V / A
Batch No.	248006	Date / Session	09/10/2023 FN	Department	AI & DS
Course Code	CCS341	Course Title	Data Warehousing		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 20
Name and Signature of the Invigilator with date	Q. AISWARYA		09/10/23		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	10			10
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	9			9
5	✓	2	15	✓	5	✓	5	10
6	✓	2	16					
7	✓	2					Total	29
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

49

Grand Total

G. Nithya

Name and Signature of the Examiner with da

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes							50
Marks allotted		16	34				49
Marks Obtained		16	33				

QAC Audit - Remarks

NIL

19/10/23

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	R. Rupa Sri Vasini			Year / Semester / Section	III / V / A
Batch No.	2480 44	Date / Session	9/9/23 / FN	Department	AI & DS
Course Code	CCS341	Course Title	Data warehousing		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 19
Name and Signature of the Invigilator with date	S. Angel Sweety			9/9/23	

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	8			8
3	✓	2	13	✓	9			9
4	✓	2	14					
5	✓	2	15					
6	✓	2	16	✓	9			9
7	✓	2					Total	26
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

46
Grand Total

G. Nithya
Name and Signature of the Examiner with date

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes							50
Marks allotted	32	18					46
Marks Obtained	29	17					

QAC Audit - Remarks

NIL QAC 16/9/23

A. Thenmozhi
Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	A. Aashifa Parveen			Year / Semester / Section	III / V / A
Batch No.	248001	Date / Session	8/11/23 / FN	Department	AI+DS
Course Code	CCS341	Course Title	Data Warehousing		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 14
Name and Signature of the Invigilator with date	8/11/23			M. Mahendran	

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	9			9
3	✓	—	13					
4	✓	2	14	✓	10			10
5	✓	—	15	✓	9			9
6			16					
7	✓	2					Total	28
8	✓	2						
9	✓	1						
10	✓	1						
Total		12	40 Grand Total				G. Nithya Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	32	18		32	18		50
Marks Obtained	25	15		25	15		40

QAC Audit - Remarks

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	Niketha Abigail. T			Year / Semester / Section	2/4/B
Batch No.	258065	Date / Session	03/04/2024/FN	Department	AID
Course Code	AD3491	Course Title	Fundamentals of Data Science & Analytics		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	3/4/24 Dr. V. MOHAN				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13	✓	10			10
4	✓	1	14					
5	✓		15	✓	8			8
6	✓	2	16					
7	✓	1					Total	27
8	✓	1						
9	✓	2						
10	✓	2						
Total		15	Grand Total		42		Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	18	32					50
Marks Obtained	17	25					42

QAC Audit - Remarks

—

17/4/24

Dr. M. V. Sufyadevi

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. Shalini			Year / Semester / Section	II / IV / B
Batch No.	258096	Date / Session	02.05.2024/FN	Department	AI & DS
Course Code	AD3491	Course Title	Fundamentals of Data Science and Analytics		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 17
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					10
2	✓	2	12	✓	10			
3	✓	1	13					
4	✓	1	14	✓	10			10
5	✓	2	15	✓	10			10
6	✓	2	16	✓				
7	✓	2					Total	30
8	✓	2	48					
9	✓	2						
10	✓	2						
Total		18	Grand Total				Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted			2	34	14		50
Marks Obtained			2	32	14		48

QAC Audit - Remarks

NIL

22/5/24

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	J. Pooja Sri			Year / Semester / Section	II / IV / B
Batch No.	258074	Date / Session	04.06.2024 / F.N	Department	AI & DS
Course Code	AD 3491	Course Title	Fundamentals of Data Science and Analytics		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 16
Name and Signature of the Invigilator with date	K. AMARNATH K. A 4/6/24				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	10			10
2	✓	2	12					
3	✓	2	13	✓	10			10
4	✓	2	14					
5	✓	2	15	✓	10			10
6	✓	—	16					
7	✓	2					Total	30
8	✓	2						
9	✓	2						
10	✓	2						
Total		18	Grand Total		48		Name and Signature of the Examiner with date	

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes					32	18	50
Marks allotted					30	18	48
Marks Obtained							

QAC Audit - Remarks

NIL

J. Sathia 20/6/24

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	Perumalan . V			Year / Semester / Section	III / 6 / 'A'
Batch No.	248037	Date / Session	28.2.2024 / F.N	Department	AI & DS
Course Code	CCS372	Course Title	Virtualization		
Internal Assessment Test	I ✓	II ☐	III ☐	Model ☐	No. of pages used : 10
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✓	Marks	Q. NO.	✓	(a) Marks	✓	(b) Marks	
1	✓	1	11	✓	2			2
2	✓	2	12					
3	✓	2	13	✓	7			7
4	✓	2	14					
5	✓	1	15	✓	7			7
6	✓	2	16					
7	✓	1					Total	16
8	✓	2						
9	✓	2						
10	✓	2						
Total		17						

33
Grand Total

T. ANITA DOROTHY 28/2
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	32	18					50
Marks Obtained	19	14					33

QAC Audit - Remarks

—

Dr. M. V. Sujayadev
Name and Signature of the QAC member

VIRTUALIZATION - CCS372

ASSIGNMENT - 01

DESCRIPTION	ALLOTED MARKS	OBTAINED MARKS
CONTENT	6	6
SUBMISSION	2	0
PRESENTATION	2	2
TOTAL	10	8

BAC member

DONE BY

RABINSON G

248039

III - AI & DS

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. AKSHIYA VAIBHAVI			Year / Semester / Section	III / VI
Batch No.	248005	Date / Session	28.3.24	Department	AI and DS
Course Code	CCS372	Course Title	Virtualization		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓			10	10
2	✓	2	12					
3	✓	1	13	✓			10	10
4	✓	2	14					
5	✓	1	15	✓			10	10
6	✓	2	16					
7	✓	2					Total	30
8	✓	2						
9	✓	2						
10	✓	2						
Total		18	48 Grand Total				T-ANITA DOROTHY Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		14	36				50
Marks Obtained		14	34				48

QAC Audit - Remarks

—

Dr. N.V. Sujapadma

Name and Signature of the QAC member

VIRTUALIZATION

CCS372

ASSIGNMENT - 2

S.NO	DESCRIPTION	MARKS ALLOTTED	MARKS OBTAINED
1	CONTENT	6	6
2	PRESENTATION	2	2
3	SUBMISSION	2	2
	TOTAL	10	10

Staff Member

DONE BY...

LAVANYA. R

248031

AIDS - 'A'

III - YEAR

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	T. Soumiya			Year / Semester / Section	3rd / 6th / A
Batch No.	248049	Date / Session	25.4.24 / F.N	Department	AI & DS
Course Code	CCS372	Course Title	Virtualization		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	Agl 25/4/24	A. KAVYA			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13	✓	9			9
4	✓	2	14					
5	✓	2	15	✓	3			3
6	✓	2	16					
7	✓	2					Total	21
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

41
Grand Total

T. ANITA DOROTHY
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				22	28		50
Marks Obtained				21	20		41

QAC Audit - Remarks

NIL

J. Sathia Padam 22/5/24
(J. Sathia Padam)
Name and Signature of the QAC member

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24.8.2023

Circular

First Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 29.8.2023 as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – First Hour

11.50 a.m. – 12.45 p.m. – Second Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
29.8.2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS335-Cloud computing	CS3691-Embedded System and IOT
31.8.2023	CS3501-Compiler Design	CEC332-Advanced Digital Signal Processing	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	CCS334-BigData Analysis	CW3551-Data and Information Security
2.9.2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	AD3501-Deep Learning	CCS335-Cloud Computing
4.9.2023	CS3551-Distributed Computing	CEC331-4G/5G Communication Networks	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CW3551-Data and Information Security	CCS367-Storage Technologies
5.9.2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CS3551-Distributing Computing	CW3501-Fundamentals of Management
9.9.2023	CCS375-Web Technologies	EC3501-Wireless Communication	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS341- Data Warehousing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
29.8.2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
31.8.2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
2.9.2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-InstrumentationinPetrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
4.9.2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
5.9.2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9.9.2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '3' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'AID' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:AID Semester:3 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	AD3301-kayal-aids			AD3351-anitadorothy-aid			AD3391-ravimaran-aid			AL3391-dineshkumar-cse			CS3351-sridevi-aid			MA3354-arunkumar-mat		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813822243001	258001	AADESH. S	MQ	NIL	7.8416	58	A	58	58	50	62	50	50	34	50	64	42	76	52	30	66	46	50
2	813822243002	258002	AADHITHYA PRAKASH. S	MQ	1	*	70	50	A	A	50	38	50	50	28	22	62	18	36	24	38	38	50	18
3	813822243003	258003	AASIS MOHAMED. A	GQ	NIL	8.1881	86	60	66	60	66	64	68	64	58	76	78	38	60	64	72	60	54	72
4	813822243004	258004	AATHITHIYAA. V	GQ	NIL	8.4059	94	80	70	72	80	76	70	66	68	80	88	60	52	64	56	72	60	50
5	813822243005	258005	ABINAYA. M	GQ	NIL	8.2178	76	82	84	76	72	80	50	74	80	82	80	50	62	72	52	64	56	72
6	813822243006	258006	ABINAYAA. J	GQ	NIL	7.8812	A	38	54	60	60	50	20	60	52	36	78	32	60	56	32	64	52	50
7	813822243007	258007	AISWARIYA. R P	MQ	NIL	8.901	86	90	80	84	88	86	88	84	72	82	90	62	88	80	A	80	80	90
8	813822243008	258008	AJAY KUMAR. P	GQ	NIL	7.6931	38	50	68	56	60	56	50	62	56	50	72	42	62	62	50	52	56	68
9	813822243009	258009	AKSHAYA. S	MQ	NIL	8.1485	72	72	72	60	64	62	36	80	60	72	88	42	80	68	50	64	58	56
10	813822243010	258010	AMIRTHA. N	MQ	NIL	8.2178	86	50	80	76	78	84	50	84	56	82	64	64	78	64	A	64	50	A
11	813822243011	258011	ANANTHIKA. L	MQ	NIL	7.9406	54	34	66	50	64	58	20	72	50	54	58	50	78	68	A	80	54	64
12	813822243012	258012	ANBU. S V	GQ	NIL	8.8218	88	84	70	64	80	86	86	92	82	88	66	64	98	92	72	78	74	56
13	813822243013	258013	ARCHANA. A	GQ	NIL	7.802	52	50	78	60	70	78	32	84	58	52	82	26	82	68	50	80	50	52
14	813822243014	258014	ARSATH PARVESH. M	MQ	NIL	8.5644	62	64	80	50	84	76	70	70	50	64	86	38	72	68	64	62	62	50
15	813822243015	258015	BALAJI. V	GQ	NIL	8.6535	84	86	84	68	60	70	80	86	74	72	90	60	84	84	68	54	74	74
16	813822243016	258016	BALAJOTHY. P	GQ	1	*	60	40	58	56	58	50	54	64	50	68	64	26	80	56	28	36	38	50
17	813822243017	258017	BENEDICT RATZINGER. P	GQ	NIL	7.7426	50	50	50	36	50	38	50	62	44	26	74	28	74	80	38	56	50	50
18	813822243018	258018	BHARATHI. S	GQ	1	*	50	36	52	18	56	56	18	70	52	32	58	20	28	60	24	46	56	54
19	813822243019	258019	BOOMIKA. S	GQ	NIL	8.604	92	82	86	72	80	70	58	86	78	72	88	70	96	84	68	60	70	62
20	813822243020	258020	DHARANESHWAR. K	MQ	NIL	7.4653	72	60	78	52	62	60	50	60	50	58	76	38	80	60	36	40	52	38
21	813822243021	258021	DHARANYA. G	GQ	NIL	7.9604	84	60	A	74	A	74	54	74	58	58	70	42	76	70	A	50	50	50
22	813822243022	258022	DHARSHINI. A	GQ	NIL	8.604	100	92	72	72	74	70	62	88	74	90	90	62	92	88	A	70	68	72
23	813822243023	258023	DHARSHINI. J	GQ	NIL	8.4554	100	72	78	76	84	86	60	90	70	80	84	50	82	88	68	80	76	80
24	813822243024	258024	DHEVAVARNA. T M	GQ	NIL	8.3663	A	50	64	76	62	54	50	76	58	A	68	64	60	80	50	A	66	36
25	813822243025	258025	DHIVIA BHARATHI. B	MQ	NIL	8.4158	90	82	64	78	84	72	72	90	70	80	86	70	88	66	56	74	70	80
26	813822243026	258026	DINESHKUMAR. P	GQ	NIL	7.604	42	50	50	60	54	50	50	60	34	50	58	38	50	50	28	58	32	50
27	813822243027	258027	FATHIMA MARIYAM. Z	MQ	1	*	74	50	70	52	66	50	50	82	50	76	84	40	74	64	60	50	58	58
28	813822243028	258028	FRANCIS ROBINA. S	MQ	NIL	7.8317	68	42	58	64	70	38	84	80	52	84	82	A	68	60	60	60	58	A
29	813822243029	258029	GABIN CLEMENT. A	MQ	8	*	18	14	12	12	12	34	0	26	22	6	26	6	36	44	0	26	14	22
30	813822243030	258030	GAYATHRI. R	GQ	NIL	8.099	64	80	66	68	72	64	76	84	62	68	72	50	90	64	56	82	64	66
31	813822243031	258031	GIRIDHARAN. P	GQ	NIL	7.9406	68	50	52	52	68	60	52	58	38	64	56	36	78	56	20	68	78	50
32	813822243032	258032	GOMATHIRAGAVI. S	MQ	NIL	8.1287	56	56	50	72	72	58	52	60	60	78	84	44	86	54	68	66	52	68
33	813822243033	258033	GUHAN. R	GQ	NIL	7.1782	A	30	20	38	28	24	A	56	26	52	54	4	36	52	32	28	34	42
34	813822243034	258034	GUNALAN. S	MQ	NIL	7.1782	60	16	24	50	42	64	16	50	30	50	50	40	54	50	12	38	50	50
35	813822243035	258035	HARIBASKAR. M	GQ	NIL	8.1287	60	34	64	50	52	76	34	72	50	50	74	26	86	60	50	56	54	54
36	813822243036	258036	HASHAN. R A	GQ	NIL	7.8119	50	50	54	54	76	60	62	80	44	68	74	30	64	64	32	56	50	34
37	813822243037	258037	IMAM AKRAM. B	MQ	NIL	8.6436	82	74	80	72	56	66	72	68	80	82	54	56	100	60	62	76	90	72
38	813822243038	258038	INDHIRA PRIYA DHARSHINI. G C	MQ	NIL	7.198	44	32	42	52	62	50	22	62	50	50	62	28	64	58	32	34	50	34
39	813822243039	258039	IYYAPPAN. E	GQ	NIL	7.8119	70	50	64	68	72	68	64	66	50	50	76	26	88	56	52	72	54	68
40	813822243040	258040	JAYANTHAN. RM	MQ	NIL	7.7723	78	50	60	86	56	50	A	60	44	58	60	38	62	60	40	50	58	32
41	813822243041	258041	JAYASHRI. V	GQ	NIL	8.5149	92	92	90	70	88	86	56	76	60	82	80	60	70	56	64	60	74	54
42	813822243042	258042	JEEVA. S	MQ	1	*	70	54	64	64	66	58	34	56	52	74	80	36	74	52	52	68	52	56
43	813822243043	258043	JENNIFER RUBINA. J	GQ	2	*	76	72	74	54	52	52	64	82	56	74	84	42	74	56	56	58	66	50
44	813822243044	258044	JOSVA. F	GQ	NIL	7.2178	64	28	84	50	50	52	A	50	30	A	38	6	32	52	50	50	40	24
45	813822243045	258045	KAMALESH. M	GQ	NIL	8.2079	68	54	24	40	60	A	52	58	42	52	76	50	88	72	24	70	52	46
46	813822243046	258046	KARPOORAASUNDARAPANDIAN. P	MQ	NIL	8.6337	70	66	84	68	84	72	78	88	72	84	78	68	100	76	56	84	80	52
47	813822243047	258047	KARTHICK. S	GQ	NIL	7.2772	50	50	24	32	40	30	30	62	44	28	42	26	62	52	24	36	20	26
48	813822243048	258048	KARTHIKA. B	GQ	NIL	8.2673	84	78	86	62	68	78	56	82	56	60	70	62	92	80	68	66	76	68
49	813822243049	258049	KAVIYA. P	MQ	NIL	8.1485	68	86	74	64	62	66	60	72	56	68	80	32	88	72	50	68	66	62
50	813822243050	258050	KEERTANA. R	MQ	NIL	8.3366	72	40	68	76	66	58	58	74	56	64	70	32	76	60	36	64	58	72
51	813822243051	258051	KEERTHANA. A	GQ	NIL	7.8218	56	62	90	74	58	60	18	58	50	50	72	30	88	58	50	62	52	34

52	813822243052	258052	KIRUTHIKA. M M	GQ	NIL	8.7822	82	90	82	76	82	64	78	86	72	90	84	68	100	80	66	92	90	64
53	813822243053	258053	KRISHNAKUMAR. S	GQ	1	*	32	60	74	64	64	54	58	74	42	50	68	32	62	68	56	52	54	50
54	813822243054	258054	LINKESH. V B	GQ	4	*	76	A	42	88	26	A	A	66	46	34	34	24	26	52	A	28	38	12
55	813822243055	258055	LOGAPPRIYA. G	GQ	NIL	7.9208	54	44	52	64	68	36	34	84	52	64	70	24	76	68	20	50	64	36
56	813822243056	258056	LOKESH WARAN. A	GQ	12	*	24	18	18	24	40	8	8	36	0	2	20	2	34	24	0	14	22	08
57	813822243057	258057	MAADHAVPRASAD. R	MQ	NIL	7.6733	50	A	70	28	66	44	70	A	50	66	52	30	52	54	16	44	50	50
58	813822243058	258058	MALAVEEKA SRIDHAR	MQ	1	*	78	50	52	78	56	22	A	58	50	72	54	16	56	56	36	20	54	30
59	813822243059	258059	MANIMARAN. S	GQ	1	*	62	60	72	54	58	50	50	56	52	76	66	32	60	60	56	46	40	50
60	813822243060	258060	MANOJ. K	MQ	NIL	7.4059	62	50	58	50	58	62	40	52	38	64	54	22	44	40	52	36	14	34
61	813822243302	258121	DHIVAKAR. B	GQ	NIL	7.5	50	56	50	34	58	50	36	56	A	38	74	10	56	52	36	50	36	50
62	813822243304	258123	SABARISH. M	GQ	NIL	7.9615	64	62	60	52	64	40	30	52	50	60	62	24	56	60	28	54	50	52
No.of Failures(<50)							6	14	8	9	6	10	16	2	17	9	5	41	8	3	23	15	12	17

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '3' and b.sec = 'B' and b.semperiod = '23-24ODD' and b.branch = 'AID' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:AID Semester:3 Section:B

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	AD3301-kayal-aids			AD3351-anitadorothy-aid			AD3391-nithyalakshmi-aid			AL3391-dineshkumar-cse			CS3351-sridevi-aid			MA3354-subhashini-mat		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813822243061	258061	MATHIVATHANI. M	MQ	NIL	7.5842	78	34	52	A	54	68	50	60	54	A	68	24	A	60	24	26	56	12
2	813822243062	258062	MOHAMED FAYAS. A	GQ	NIL	8.0198	70	50	38	60	66	58	62	76	50	76	74	50	64	52	32	28	36	20
3	813822243063	258063	MOHANAPRASATH. V	GQ	2	*	68	38	22	32	56	30	50	64	32	60	A	40	56	36	8	18	26	4
4	813822243065	258064	MONISHA. D	GQ	1	*	40	26	50	50	50	60	38	72	22	50	68	52	50	52	32	12	54	4
5	813822243066	258065	NIKETHA ABIGAIL. T	GQ	NIL	9.198	100	96	86	90	78	80	86	94	84	88	86	70	98	90	A	78	70	A
6	813822243067	258066	NITHYA. B	GQ	NIL	8.2871	80	66	66	72	62	46	60	76	56	82	78	58	66	58	A	64	60	A
7	813822243068	258067	NIVETHITHA. R	GQ	NIL	8.0396	74	80	84	66	60	76	54	88	72	70	70	58	88	60	64	70	58	58
8	813822243069	258068	OVIYA. K	GQ	NIL	8.3267	70	78	72	70	62	72	70	92	84	76	80	68	76	66	50	50	66	32
9	813822243070	258069	PANDIAN. M	GQ	NIL	8.3366	60	62	14	50	72	44	62	70	50	58	86	50	66	50	4	56	54	16
10	813822243071	258070	PANDIYARAJAN. M	GQ	1	*	66	50	38	32	22	42	56	76	60	64	50	42	44	50	4	16	6	32
11	813822243072	258071	PAVITHRA. R	GQ	NIL	8.5149	74	82	72	78	76	66	68	88	88	82	90	70	84	76	60	64	64	36
12	813822243073	258072	PONMURUGAIYA. P	GQ	NIL	8.099	86	66	72	52	50	62	80	72	74	62	58	34	68	72	50	54	30	44
13	813822243074	258073	PONNAMBALAM ROHIT. V	MQ	NIL	8.2376	70	50	A	54	52	A	A	71	A	78	66	A	64	56	A	A	50	A
14	813822243075	258074	POOJA SRI. J	GQ	NIL	9.2772	100	98	86	90	90	82	96	98	94	94	90	86	100	96	76	94	84	96
15	813822243076	258075	POORVAJA. S	MQ	NIL	7.8564	60	50	50	38	50	50	58	63	42	50	52	26	64	76	40	50	50	A
16	813822243077	258076	PRABHA. M	MQ	NIL	8.2178	68	50	74	58	70	72	68	84	40	86	80	66	64	80	36	56	78	28
17	813822243078	258077	PRATHIPAA. A R	GQ	NIL	8.1188	50	50	60	78	62	66	56	86	60	88	64	50	76	56	24	64	70	70
18	813822243079	258078	PRAVEENKUMAR. R E	MQ	3	*	50	32	12	8	32	34	26	50	50	30	36	32	44	44	0	14	6	0
19	813822243080	258079	PRIADHARSHINE. S	GQ	NIL	8.0693	70	30	36	A	60	46	68	70	66	A	58	50	70	56	12	50	A	A
20	813822243081	258080	RAGHAVAN. G	MQ	NIL	7.8317	56	50	50	24	40	40	60	73	26	40	64	12	56	58	24	10	54	8
21	813822243082	258081	RAHUL. S	MQ	2	*	68	54	A	32	64	36	62	80	38	51	68	28	20	60	12	20	58	A
22	813822243083	258082	RAKHESH. A	MQ	1	*	0	28	8	22	66	46	18	55	4	38	64	10	16	40	24	36	10	0
23	813822243084	258083	RANJITH. K S	MQ	8	*	16	14	12	8	24	18	2	28	0	2	22	32	0	30	12	0	0	0
24	813822243085	258084	REDDY PALLI RIZWANA	GQ	NIL	8.495	64	86	70	70	70	58	64	90	62	88	82	68	76	50	52	56	54	38
25	813822243086	258085	RISHI KUMAR. S	MQ	1	*	74	76	64	80	64	38	36	60	38	82	64	42	78	60	36	52	60	22
26	813822243087	258086	RISHWANTH. R	MQ	1	*	36	44	36	40	50	34	36	54	36	24	68	36	8	36	32	2	26	2
27	813822243088	258087	ROHITH. B	MQ	2	*	24	24	A	26	38	10	26	52	A	A	50	A	4	52	20	20	8	0
28	813822243089	258088	RUTHEESHWARAN. P	GQ	NIL	8.3168	78	62	60	70	64	40	50	92	36	78	64	34	68	52	16	62	54	22
29	813822243090	258089	SABARINATHAN. M	GQ	NIL	8.0198	62	16	A	60	44	46	50	44	0	64	58	38	70	52	24	50	28	16
30	813822243091	258090	SAIPRIYADARSHINI. R	MQ	NIL	8.7129	82	92	72	74	76	58	71	94	64	84	72	42	84	76	40	80	80	50
31	813822243092	258091	SAMINATHAN. B	GQ	NIL	8.1683	64	58	54	52	60	52	52	74	56	66	66	50	70	52	24	50	40	28
32	813822243093	258092	SARVESVAR. S	GQ	1	*	50	44	6	32	56	38	60	64	22	40	52	56	40	56	28	30	12	20
33	813822243094	258093	SARWESHVARAN. A	GQ	NIL	8.099	62	66	52	70	50	58	60	72	30	64	74	44	54	60	28	50	50	40
34	813822243095	258094	SATHISH. C	GQ	2	*	70	50	6	52	28	A	54	52	4	58	50	4	62	64	0	18	34	2
35	813822243096	258095	SHAILESH. A	MQ	3	*	56	42	16	36	36	28	40	56	30	58	50	36	52	44	40	22	50	20
36	813822243097	258096	SHALINI. S	GQ	NIL	9.4455	100	98	94	92	88	88	90	98	90	94	92	88	100	82	96	96	96	98
37	813822243098	258097	SHUBASHINI. J	MQ	NIL	8.7921	96	90	86	84	82	90	58	94	88	90	90	62	98	72	56	52	88	74
38	813822243099	258098	SIVA GURU. M	GQ	5	*	40	8	4	40	50	28	14	62	2	12	50	24	28	56	4	A	0	0
39	813822243100	258099	SIVA SANKARI. P K	GQ	3	*	22	14	20	50	50	12	28	50	14	42	50	16	16	46	8	10	16	10
40	813822243101	258100	SIVASRI. V	MQ	NIL	7.6535	68	22	A	50	56	54	52	72	24	50	66	30	64	56	14	12	30	0
41	813822243102	258102	SRINITHI. A	GQ	NIL	7.505	64	60	72	54	70	42	68	76	56	64	70	42	84	50	50	50	52	56
42	813822243103	258101	SRI SUDHARSAN. M	MQ	4	*	4	22	12	28	32	38	A	58	24	2	56	28	12	56	28	12	6	0
43	813822243104	258103	SUBHASH PRABU. S R	GQ	3	*	20	50	16	28	30	36	14	50	28	24	22	36	20	30	16	20	36	0

44	813822243105	258104	SURYA PRAKASH. V	GQ	1	*	50	28	6	40	50	A	38	70	14	40	64	A	56	72	A	10	14	A
45	813822243106	258105	SWAATHY. B	MQ	1	*	68	54	70	52	50	28	60	86	66	90	62	40	64	56	56	64	60	24
46	813822243107	258106	SWETHA. P	MQ	NIL	8.5248	64	50	58	32	62	32	68	70	44	A	78	50	72	56	60	64	24	28
47	813822243108	258107	SWETHA. R	GQ	NIL	8.505	90	80	78	54	76	74	76	91	74	90	66	44	96	56	68	82	70	84
48	813822243109	258108	THARUNEKAA MADHAVAN	MQ	NIL	8.1188	66	80	64	54	56	22	62	73	54	60	50	42	76	60	22	84	62	28
49	813822243110	258110	TRISHA. D Y	GQ	NIL	8.6436	90	90	88	68	76	68	64	92	70	74	82	54	82	80	52	78	64	76
50	813822243111	258109	TRISHA SHINY. J	MQ	NIL	8.6832	84	84	56	62	62	70	72	94	64	88	76	42	80	64	52	86	74	26
51	813822243112	258111	UDHAYASEKARAN. S	MQ	2	*	50	26	34	50	40	52	24	76	50	50	50	20	20	52	50	10	32	4
52	813822243113	258112	VEDHALAKSHMI. M	GQ	NIL	7.4752	A	50	50	A	50	34	A	70	40	52	62	16	64	44	A	40	38	4
53	813822243114	258113	VIGNESH. H	MQ	2	*	54	10	64	32	38	46	34	52	32	50	54	20	68	56	32	32	32	28
54	813822243115	258114	VIGNESH. L	MQ	NIL	8.2376	82	70	70	72	A	50	76	76	44	80	68	42	100	56	30	74	42	24
55	813822243116	258115	VIGNESWARI. D	GQ	NIL	8.7327	82	86	28	64	72	50	54	74	58	76	78	50	80	82	A	86	88	30
56	813822243117	258117	VIJAYAKUMAR. S	GQ	3	*	A	10	24	54	50	42	19	52	A	64	64	14	64	52	20	62	58	8
57	813822243118	258116	VIJAY INFANT. A	GQ	3	*	40	24	24	30	52	20	28	62	12	38	68	12	60	50	0	20	30	6
58	813822243119	258118	YALINI. C	GQ	1	*	50	50	52	56	68	62	60	72	50	74	68	42	40	58	50	50	50	56
59	813822243120	258119	YUVASRI. S	GQ	NIL	8.2178	84	38	74	76	68	68	68	74	54	A	70	44	60	62	32	52	68	66
60	813822243301	258120	AKSHAYA. R	GQ	5	*	4	22	32	8	20	A	8	16	4	18	2	0	0	A	4	0	0	0
61	813822243303	258122	RANJITH KUMAR. A	GQ	1	*	54	22	40	36	32	30	6	16	4	30	64	20	56	50	20	20	24	A
62	813822243305	258124	SAMSANTHOSH. J	GQ	4	*	20	10	20	12	32	16	2	12	4	12	26	10	4	4	4	8	2	0
No.of Failures(<50)							11	24	23	21	15	30	18	4	29	14	4	38	15	10	39	26	27	42

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '4' and b.sec = 'A' and b.semperiod = '23-24EVEN' and b.branch = 'AID' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:AID Semester:4 Section:A

Semester Period:23-24EVEN

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	AD3491-sridevi-aid			AL3451-dineshkumar-cse			AL3452-nithyalakshmi-aid			CS3591-anitadorothy-aid			GE3451-balamurugan-che			MA3391-lakshmidev mat		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A
1	813822243001	258001	AADESH. S	MQ	NIL	7.8416	50	58	60	56	54	50	A	50	30	24	62	32	58	58	66	52	70	3
2	813822243002	258002	AADHITHYA PRAKASH. S	MQ	1	*	18	32	30	50	50	A	42	30	32	20	50	8	30	50	50	34	30	3
3	813822243003	258003	AASIS MOHAMED. A	GQ	NIL	8.1881	64	56	64	82	82	78	70	66	80	34	52	52	80	80	82	44	80	5
4	813822243004	258004	AATHITHIYAA. V	GQ	NIL	8.4059	54	68	78	84	86	90	66	74	82	50	52	60	70	84	66	82	68	6
5	813822243005	258005	ABINAYA. M	GQ	NIL	8.2178	74	66	72	64	64	82	76	78	84	60	72	70	80	74	76	76	82	2
6	813822243006	258006	ABINAYAA. J	GQ	NIL	7.8812	64	10	62	54	16	74	20	32	64	50	50	54	32	38	50	66	72	2
7	813822243007	258007	AISWARIYA. R P	MQ	NIL	8.901	97	60	82	84	82	88	84	78	96	82	86	84	86	80	86	84	84	5
8	813822243008	258008	AJAY KUMAR. P	GQ	NIL	7.6931	61	52	71	50	60	76	60	56	68	52	56	56	52	50	50	48	74	
9	813822243009	258009	AKSHAYA. S	MQ	NIL	8.1485	82	29	62	62	82	80	66	86	A	54	60	70	66	64	68	86	70	5
10	813822243010	258010	AMIRTHA. N	MQ	NIL	8.2178	50	64	68	70	A	78	68	A	84	76	68	76	80	68	74	96	86	5
11	813822243011	258011	ANANTHIKA. L	MQ	NIL	7.9406	42	30	62	54	50	66	34	58	80	62	70	56	50	64	62	62	70	2
12	813822243012	258012	ANBU. S V	GQ	NIL	8.8218	95	63	82	76	80	62	74	76	84	52	78	86	82	60	84	88	72	6
13	813822243013	258013	ARCHANA. A	GQ	NIL	7.802	61	38	74	62	A	72	54	74	92	54	66	62	70	50	68	44	58	2
14	813822243014	258014	ARSATH PARVESH. M	MQ	NIL	8.5644	90	56	88	80	70	80	58	68	74	54	60	68	58	52	56	54	46	5
15	813822243015	258015	BALAJI. V	GQ	NIL	8.6535	80	58	82	82	86	84	66	84	86	70	82	80	76	72	62	88	82	6
16	813822243016	258016	BALAJOTHY. P	GQ	1	*	52	54	68	72	52	66	64	54	76	54	68	64	A	34	54	32	42	2
17	813822243017	258017	BENEDICT RATZINGER. P	GQ	NIL	7.7426	57	45	62	50	64	70	20	38	42	28	50	54	52	36	58	62	A	2
18	813822243018	258018	BHARATHI. S	GQ	1	*	58	51	60	54	66	54	30	60	50	50	54	42	50	50	48	46	68	3
19	813822243019	258019	BOOMIKA. S	GQ	NIL	8.604	88	68	72	84	74	76	74	74	80	76	84	80	70	62	74	70	90	5
20	813822243020	258020	DHARANESHWAR. K	MQ	NIL	7.4653	54	42	A	70	70	70	60	60	72	64	72	68	56	66	A	62	50	1
21	813822243021	258021	DHARANYA. G	GQ	NIL	7.9604	62	64	74	78	54	72	34	64	66	74	72	76	62	A	78	62	72	3
22	813822243022	258022	DHARSHINI. A	GQ	NIL	8.604	80	58	84	84	70	86	70	86	90	74	78	72	62	68	86	78	92	5
23	813822243023	258023	DHARSHINI. J	GQ	NIL	8.4554	74	75	82	86	74	80	58	68	72	84	86	72	86	82	72	90	84	5
24	813822243024	258024	DHEVAVARNA. T M	GQ	NIL	8.3663	63	58	66	76	58	66	40	A	78	70	62	68	38	38	54	80	84	5
25	813822243025	258025	DHIVIA BHARATHI. B	MQ	NIL	8.4158	74	60	90	94	96	90	70	84	90	76	68	84	82	68	78	72	92	5
26	813822243026	258026	DINESHKUMAR. P	GQ	NIL	7.604	62	22	62	64	66	42	50	50	A	40	38	54	60	52	54	50	62	2
27	813822243027	258027	FATHIMA MARIYAM. Z	MQ	1	*	40	51	56	78	64	68	66	80	80	62	56	62	54	62	76	64	56	1
28	813822243028	258028	FRANCIS ROBINA. S	MQ	NIL	7.8317	50	66	72	82	28	66	50	52	72	62	70	78	70	60	60	62	80	3
29	813822243029	258029	GABIN CLEMENT. A	MQ	8	*	20	11	20	6	4	2	2	4	24	4	6	10	8	20	18	24	32	
30	813822243030	258030	GAYATHRI. R	GQ	NIL	8.099	80	75	66	72	66	84	66	66	78	60	74	84	68	60	74	76	76	5
31	813822243031	258031	GIRIDHARAN. P	GQ	NIL	7.9406	80	65	68	72	52	60	42	50	66	50	50	52	42	60	32	70	80	5
32	813822243032	258032	GOMATHIRAGAVI. S	MQ	NIL	8.1287	70	90	64	86	66	86	56	70	82	58	64	68	64	66	62	64	78	5
33	813822243033	258033	GUHAN. R	GQ	NIL	7.1782	34	33	74	30	26	36	32	30	16	22	24	10	50	40	30	34	42	2
34	813822243034	258034	GUNALAN. S	MQ	NIL	7.1782	50	59	62	50	42	50	38	30	42	38	30	58	38	34	50	42	30	3
35	813822243035	258035	HARIBASKAR. M	GQ	NIL	8.1287	74	58	78	66	62	84	54	80	58	40	64	50	60	42	72	78	56	2
36	813822243036	258036	HASHAN. R A	GQ	NIL	7.8119	72	57	54	50	68	60	60	68	76	50	54	66	50	52	52	50	78	1
37	813822243037	258037	IMAM AKRAM. B	MQ	NIL	8.6436	86	88	92	90	82	70	68	88	64	56	54	76	70	66	72	72	80	7
38	813822243038	258038	INDHIRA PRIYA DHARSHINI. G C	MQ	NIL	7.198	52	50	58	A	32	50	26	24	72	18	50	52	50	50	42	46	32	2
39	813822243039	258039	IYYAPPAN. E	GQ	NIL	7.8119	64	52	68	50	68	64	50	62	74	38	40	62	22	32	42	66	58	3
40	813822243040	258040	JAYANTHAN. RM	MQ	NIL	7.7723	50	60	68	78	56	68	50	58	A	52	58	36	50	50	66	56	36	2
41	813822243041	258041	JAYASHRI. V	GQ	NIL	8.5149	74	78	82	84	78	74	50	82	82	50	78	78	76	64	80	82	60	5
42	813822243042	258042	JEEVA. S	MQ	1	*	72	65	76	74	68	76	50	A	74	46	50	68	40	58	62	66	48	5
43	813822243043	258043	JENNIFER RUBINA. J	GQ	2	*	85	67	72	68	60	60	40	56	42	50	50	40	50	54	50	58	60	5
44	813822243044	258044	JOSVA. F	GQ	NIL	7.2178	40	50	62	32	28	24	30	36	50	A	22	28	26	50	10	38	46	2
45	813822243045	258045	KAMALESH. M	GQ	NIL	8.2079	52	64	72	64	60	74	50	50	50	50	52	58	50	54	74	50	42	5
46	813822243046	258046	KARPOORAASUNDARAPANDIAN. P	MQ	NIL	8.6337	86	93	88	78	86	80	76	82	86	60	80	86	80	68	80	86	98	7
47	813822243047	258047	KARTHICK. S	GQ	NIL	7.2772	50	34	A	28	20	34	28	28	36	32	44	50	24	A	A	56	42	1
48	813822243048	258048	KARTHIKA. B	GQ	NIL	8.2673	68	64	72	62	80	86	60	72	84	66	74	88	70	62	66	80	82	5
49	813822243049	258049	KAVIYA. P	MQ	NIL	8.1485	72	62	76	72	72	82	62	70	A	50	68	72	60	66	66	64	76	2
50	813822243050	258050	KEERTANA. R	MQ	NIL	8.3366	78	62	74	54	68	66	50	62	70	60	68	72	62	72	76	74	80	5
51	813822243051	258051	KEERTHANA. A	GQ	NIL	7.8218	66	51	76	62	66	72	34	58	82	50	72	84	50	50	62	60	66	

52	813822243052	258052	KIRUTHIKA. M M	GQ	NIL	8.7822	60	97	88	90	94	88	72	80	88	62	70	86	80	80	64	84	94	7
53	813822243053	258053	KRISHNAKUMAR. S	GQ	1	*	70	55	72	68	50	84	68	66	58	62	A	54	52	50	50	54	62	5
54	813822243054	258054	LINKESH. V B	GQ	4	*	62	A	54	38	50	58	8	14	36	18	20	8	18	30	44	32	8	3
55	813822243055	258055	LOGAPPRIYA. G	GQ	NIL	7.9208	56	60	52	80	52	60	60	56	66	60	40	50	58	64	30	60	54	3
56	813822243056	258056	LOKESH WARAN. A	GQ	12	*	4	0	12	0	4	4	6	8	46	20	4	6	10	16	8	20	8	
57	813822243057	258057	MAADHAVPRASAD. R	MQ	NIL	7.6733	56	56	50	32	54	52	34	A	52	52	50	50	52	54	58	54	54	5
58	813822243058	258058	MALAVEEKA SRIDHAR	MQ	1	*	40	42	50	52	54	56	34	50	50	58	30	62	50	52	54	62	54	3
59	813822243059	258059	MANIMARAN. S	GQ	1	*	52	41	40	62	58	64	40	56	68	44	50	56	54	58	46	56	50	2
60	813822243060	258060	MANOJ. K	MQ	NIL	7.4059	50	43	35	54	50	50	50	42	62	40	28	56	30	38	42	48	52	3
61	813822243302	258121	DHIVAKAR. B	GQ	NIL	7.5	52	16	52	50	50	54	55	54	A	64	60	62	6	A	40	50	A	
62	813822243304	258123	SABARISH. M	GQ	NIL	7.9615	50	38	54	58	50	74	50	34	74	60	50	78	40	50	44	50	40	1
No.of Failures(<50)							8	16	5	7	9	6	21	12	10	17	12	10	14	12	14	14	14	3

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '4' and b.sec = 'B' and b.semperiod = '23-24EVEN' and b.branch = 'AID' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:AID Semester:4 Section:B

Semester Period:23-24EVEN

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	AD3491-nithyalakshmi-aid			AL3451-preethyjanet-aid			AL3452-kayal-aids			CS3591-ravimaran-aid			GE3451-balaprasad-che			MA3391-prabha-mat		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813822243061	258061	MATHIVATHANI. M	MQ	NIL	7.5842	37	62	32	56	50	78	70	50	68	54	50	78	46	42	54	70	56	34
2	813822243062	258062	MOHAMED FAYAS. A	GQ	NIL	8.0198	50	20	34	56	34	56	62	50	50	36	62	60	60	40	50	68	54	32
3	813822243063	258063	MOHANAPRASATH. V	GQ	2	*	25	50	38	28	20	45	52	50	36	A	40	54	60	44	50	52	12	32
4	813822243065	258064	MONISHA. D	GQ	1	*	43	50	50	60	40	80	70	60	56	50	68	64	34	16	32	68	54	20
5	813822243066	258065	NIKETHA ABIGAIL. T	GQ	NIL	9.198	84	62	68	80	75	88	94	90	92	84	88	86	78	A	80	84	A	62
6	813822243067	258066	NITHYA. B	GQ	NIL	8.2871	59	80	64	76	62	74	78	82	84	64	74	66	62	44	50	72	82	60
7	813822243068	258067	NIVETHITHA. R	GQ	NIL	8.0396	48	75	50	60	62	82	80	86	78	70	86	88	60	50	56	82	76	58
8	813822243069	258068	OVIYA. K	GQ	NIL	8.3267	74	63	76	59	74	84	88	80	84	70	80	90	64	58	50	58	72	50
9	813822243070	258069	PANDIAN. M	GQ	NIL	8.3366	59	54	40	74	40	52	70	54	54	50	54	52	56	62	54	60	68	38
10	813822243071	258070	PANDIYARAJAN. M	GQ	1	*	38	18	36	64	52	34	40	50	26	54	68	36	44	42	58	22	34	4
11	813822243072	258071	PAVITHRA. R	GQ	NIL	8.5149	72	74	84	78	66	82	76	86	72	84	76	84	80	90	88	88	86	52
12	813822243073	258072	PONMURUGAIYA. P	GQ	NIL	8.099	50	76	66	56	72	70	76	80	70	70	70	78	60	52	54	52	78	50
13	813822243074	258073	PONNAMBALAM ROHIT. V	MQ	NIL	8.2376	61	50	A	68	50	58	86	68	68	56	80	82	58	54	52	76	64	50
14	813822243075	258074	POOJA SRI. J	GQ	NIL	9.2772	83	81	96	84	90	88	94	90	96	82	94	88	82	80	78	88	96	82
15	813822243076	258075	POORVAJA. S	MQ	NIL	7.8564	50	50	34	50	52	72	62	70	66	A	76	56	46	46	52	62	56	34
16	813822243077	258076	PRABHA. M	MQ	NIL	8.2178	65	51	54	66	60	84	80	66	52	70	76	72	60	50	50	68	58	36
17	813822243078	258077	PRATHIPAA. A R	GQ	NIL	8.1188	39	54	50	58	64	68	A	74	68	50	72	74	58	42	54	58	56	52
18	813822243079	258078	PRAVEENKUMAR. R E	MQ	3	*	37	8	0	16	4	4	26	50	34	42	16	16	38	A	20	6	10	A
19	813822243080	258079	PRIADHARSHINE. S	GQ	NIL	8.0693	75	A	50	52	6	A	78	64	A	56	60	A	58	50	76	82	52	22
20	813822243081	258080	RAGHAVAN. G	MQ	NIL	7.8317	56	50	16	60	54	24	76	70	29	62	78	20	54	56	62	66	42	A
21	813822243082	258081	RAHUL. S	MQ	2	*	54	50	24	62	40	42	76	52	62	40	66	10	62	A	40	56	26	2
22	813822243083	258082	RAKHESH. A	MQ	1	*	36	33	20	38	0	38	62	50	46	30	54	38	54	28	50	66	52	12
23	813822243084	258083	RANJITH. K S	MQ	8	*	19	0	0	4	4	16	26	4	0	24	24	12	18	0	2	6	8	4
24	813822243085	258084	REDDY PALLI RIZWANA	GQ	NIL	8.495	81	93	60	70	66	82	74	84	74	78	80	70	74	86	84	62	90	50
25	813822243086	258085	RISHI KUMAR. S	MQ	1	*	51	63	60	60	66	72	58	74	72	50	66	72	46	54	62	62	54	36
26	813822243087	258086	RISHWANTH. R	MQ	1	*	28	2	8	50	4	34	50	22	38	26	42	44	24	28	38	8	16	0
27	813822243088	258087	ROHITH. B	MQ	2	*	23	A	12	24	4	32	A	10	A	A	14	32	46	A	28	14	A	4
28	813822243089	258088	RUTHEESHWARAN. P	GQ	NIL	8.3168	60	60	62	62	60	64	74	76	52	62	76	84	62	66	60	52	56	52
29	813822243090	258089	SABARINATHAN. M	GQ	NIL	8.0198	62	50	18	46	50	56	66	54	50	42	50	56	56	40	50	50	40	24
30	813822243091	258090	SAIPRIYADARSHINI. R	MQ	NIL	8.7129	87	60	72	72	76	82	84	86	86	78	68	88	60	76	76	60	88	66
31	813822243092	258091	SAMINATHAN. B	GQ	NIL	8.1683	51	51	50	44	54	70	74	A	70	56	54	56	60	50	64	68	62	50
32	813822243093	258092	SARVESVAR. S	GQ	1	*	27	50	36	50	58	34	50	50	34	30	54	44	52	22	50	56	46	30
33	813822243094	258093	SARWESHVARAN. A	GQ	NIL	8.099	51	54	34	58	56	44	72	64	52	50	56	64	52	58	66	50	60	22
34	813822243095	258094	SATHISH. C	GQ	2	*	27	50	20	50	0	66	50	A	18	10	22	26	44	32	32	28	0	12
35	813822243096	258095	SHAILESH. A	MQ	3	*	40	51	32	38	38	50	30	52	68	36	56	58	44	38	42	32	34	20
36	813822243097	258096	SHALINI. S	GQ	NIL	9.4455	86	96	96	84	90	84	92	94	94	76	90	88	90	90	88	96	96	84
37	813822243098	258097	SHUBASHINI. J	MQ	NIL	8.7921	78	55	70	64	88	82	90	88	94	80	86	86	87	74	80	80	92	50
38	813822243099	258098	SIVA GURU. M	GQ	5	*	31	0	0	21	8	12	54	26	A	36	14	A	24	4	16	50	12	0
39	813822243100	258099	SIVA SANKARI. P K	GQ	3	*	21	28	16	36	32	46	48	50	52	26	28	50	36	42	52	50	32	8
40	813822243101	258100	SIVASRI. V	MQ	NIL	7.6535	50	51	28	34	20	58	70	64	64	50	66	22	58	40	54	50	46	8
41	813822243102	258102	SRINITHI. A	GQ	NIL	7.505	35	54	50	60	66	70	80	82	76	50	70	82	62	36	54	66	62	18
42	813822243103	258101	SRI SUDHARSAN. M	MQ	4	*	17	0	12	10	4	32	22	12	14	54	16	20	36	8	22	2	6	0

43	813822243104	258103	SUBHASH PRABU. S R	GQ	3	*	25	4	18	14	42	16	54	50	24	50	32	38	50	34	40	6	38	0
44	813822243105	258104	SURYA PRAKASH. V	GQ	1	*	7	22	28	12	8	38	14	50	32	50	66	46	52	54	52	28	28	4
45	813822243106	258105	SWAATHY. B	MQ	1	*	51	70	50	52	62	56	A	74	72	61	52	80	50	64	68	52	72	50
46	813822243107	258106	SWETHA. P	MQ	NIL	8.5248	50	A	50	50	64	58	70	64	A	62	54	16	52	36	64	60	52	18
47	813822243108	258107	SWETHA. R	GQ	NIL	8.505	80	53	68	60	78	84	92	82	82	64	78	84	60	54	76	78	78	62
48	813822243109	258108	THARUNEKAA MADHAVAN	MQ	NIL	8.1188	30	58	44	52	78	60	58	50	50	62	64	56	66	62	66	62	74	34
49	813822243110	258110	TRISHA. D Y	GQ	NIL	8.6436	68	69	54	66	70	82	94	86	88	66	74	82	70	54	80	86	70	52
50	813822243111	258109	TRISHA SHINY. J	MQ	NIL	8.6832	50	67	88	60	68	76	82	78	82	62	74	86	80	70	62	84	92	54
51	813822243112	258111	UDHAYASEKARAN. S	MQ	2	*	23	32	50	22	52	36	54	20	A	38	38	26	52	26	68	20	4	10
52	813822243113	258112	VEDHALAKSHMI. M	GQ	NIL	7.4752	20	A	64	50	44	56	60	62	56	50	34	62	18	54	68	52	32	32
53	813822243114	258113	VIGNESH. H	MQ	2	*	30	50	32	0	84	50	A	16	64	A	32	44	22	32	38	22	16	30
54	813822243115	258114	VIGNESH. L	MQ	NIL	8.2376	78	80	72	62	80	74	A	90	84	58	80	76	62	54	68	62	60	50
55	813822243116	258115	VIGNESWARI. D	GQ	NIL	8.7327	72	68	60	54	68	68	84	84	78	62	54	58	58	74	84	68	90	58
56	813822243117	258117	VIJAYAKUMAR. S	GQ	3	*	41	51	20	28	14	46	30	38	34	14	44	18	42	36	16	A	52	28
57	813822243118	258116	VIJAY INFANT. A	GQ	3	*	25	A	14	34	0	50	50	16	10	26	14	16	24	A	38	44	A	12
58	813822243119	258118	YALINI. C	GQ	1	*	36	62	58	54	72	60	70	70	68	66	50	74	50	52	80	66	60	30
59	813822243120	258119	YUVASRI. S	GQ	NIL	8.2178	68	62	72	62	64	76	84	80	82	70	74	86	80	62	56	84	74	A
60	813822243301	258120	AKSHAYA. R	GQ	5	*	0	0	0	6	10	16	20	8	10	A	6	20	4	2	4	6	0	4
61	813822243303	258122	RANJITH KUMAR. A	GQ	1	*	3	12	10	6	16	50	18	50	56	34	54	56	4	8	24	8	4	0
62	813822243305	258124	SAMSANTHOSH. J	GQ	4	*	8	6	6	4	6	22	8	12	30	8	16	22	4	6	12	8	4	2
No.of Failures(<50)							29	14	30	20	24	19	10	11	15	16	17	20	20	27	16	15	22	37

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '5' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'AID' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:AID Semester:5 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	AD3501-dineshkumar-cse			CCS334-sridevi-aid			CCS335-ravimaran-aid			CCS341-nithyalakshmi-aid			CS3551-anitadorothy-aid			CW3551-kayal-aids		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813821243001	248001	AASHIFA PARVEEN. A	MQ	NIL	9.25	86	88	94	98	90	98	82	94	82	0	90	80	70	92	78	90	100	96
2	813821243002	248002	ABINAYAA . M K	MQ	1	*	30	50	A	68	52	A	42	A	A	0	84	A	54	0	A	68	74	A
3	813821243003	248003	AFRA SHIREEN. N	MQ	NIL	8.4848	82	88	90	96	84	88	52	84	56	82	98	84	70	84	64	86	86	80
4	813821243004	248004	AJAY ABISHEK. M	GQ	NIL	7.7386	50	54	56	71	72	84	56	A	26	56	A	70	76	58	58	62	72	50
5	813821243005	248005	AKSHIYA VAIBHAVI. S	MQ	NIL	8.3182	A	60	74	92	74	60	58	58	50	60	80	82	74	70	A	74	80	70
6	813821243006	248006	AMARNATH. S	GQ	NIL	8.6629	68	76	90	84	94	98	64	92	58	80	98	82	82	94	76	76	98	98
7	813821243007	248007	AMBIKA. K	GQ	NIL	8.3485	84	88	80	100	80	98	70	82	64	90	90	84	74	84	82	92	96	92
8	813821243008	248008	ANTO JERUSHA. J	MQ	NIL	7.7803	30	50	64	78	84	68	50	50	34	30	74	54	50	38	28	70	58	52
9	813821243010	248010	AYSHA SUMIYA	GQ	NIL	8.8561	76	A	82	100	52	96	80	A	76	76	A	90	90	0	84	92	A	96
10	813821243011	248011	BHAVADHARANI. A	MQ	NIL	8.0682	A	66	64	64	50	A	50	52	54	76	72	76	64	72	58	64	62	60
11	813821243012	248012	DEVAPRASATH. K	MQ	NIL	7.3485	28	30	30	38	52	50	28	52	36	0	52	50	50	50	30	48	68	50
12	813821243014	248014	DHARSENI. A	GQ	NIL	8.0189	66	A	56	66	62	80	58	0	50	54	A	A	56	54	A	56	78	66
13	813821243015	248015	DHARSHAN. A	MQ	NIL	7.7424	56	62	A	66	32	32	50	60	30	50	70	28	26	32	26	74	66	32
14	813821243017	248017	DHIVYA. R	MQ	NIL	7.8674	56	74	60	80	60	56	50	58	50	62	74	76	64	68	62	72	62	78
15	813821243018	248063	EDISON. S	MQ	NIL	7.803	50	50	54	62	44	34	50	44	30	52	38	52	50	50	36	38	56	42
16	813821243019	248018	HAMILTON INFANT. A	MQ	1	*	50	68	54	84	70	16	56	44	50	52	80	50	50	34	56	64	78	42
17	813821243020	248019	HARINEE. S G	MQ	NIL	8.4621	60	60	72	92	86	96	72	62	50	80	88	68	80	80	A	84	86	72
18	813821243021	248020	HILDA DEVAPRIYAM .X	GQ	NIL	8.7652	78	64	82	100	72	76	60	70	50	36	86	60	66	72	A	68	72	76
19	813821243022	248021	ILLAKYA VARNAA. N	MQ	1	*	32	16	50	66	18	56	50	36	28	34	44	50	52	54	A	72	50	50
20	813821243023	248022	INDHUMATHI. R	GQ	NIL	7.9697	50	56	64	64	52	68	56	64	50	56	64	72	52	54	50	72	72	54
21	813821243024	248023	JANANI. D	GQ	NIL	9.0682	76	84	90	68	84	88	62	64	86	82	78	86	88	84	68	92	96	90
22	813821243025	248024	JAYANDRAKUMAR. S	MQ	3	*	8	16	18	44	12	12	32	22	26	50	44	40	24	22	44	38	30	36
23	813821243026	248025	JEEVITHA. B	GQ	1	*	62	32	58	80	50	60	50	50	36	50	66	38	40	60	34	58	32	30
24	813821243027	248026	JOEL GIFTSON. J	MQ	NIL	7.6667	38	50	52	56	20	54	50	60	50	50	66	50	32	60	50	60	52	38
25	813821243028	248027	KARTHIK SRIRAM. B A	GQ	NIL	8.2576	70	70	76	88	56	66	60	70	42	0	80	50	60	78	62	90	76	58
26	813821243029	248028	KARUNIYA. P	MQ	NIL	7.7386	20	38	30	58	50	50	52	A	16	50	62	42	50	50	A	56	50	44
27	813821243030	248029	KEERTHANA. D	GQ	NIL	7.6894	34	36	58	34	58	72	50	A	32	54	66	42	32	42	40	36	54	42
28	813821243031	248030	KEERTHANA. T	MQ	NIL	8.2121	22	68	66	100	68	76	54	66	38	62	82	80	66	58	64	86	86	82
29	813821243032	248031	LAVANYA. R	GQ	NIL	8.5455	78	A	86	84	76	98	A	88	82	80	90	80	82	90	64	90	92	88
30	813821243033	248032	MADULIKA. P S	GQ	NIL	8.1742	50	70	76	52	60	62	54	38	68	58	92	64	50	72	66	16	68	68
31	813821243034	248033	MALINI. S	GQ	NIL	8.1818	80	68	A	80	64	A	60	88	A	80	94	A	0	88	A	0	92	A
32	813821243035	248034	MOUNIKA. R	GQ	NIL	7.4886	50	50	50	96	A	80	50	68	34	0	74	56	0	70	50	68	80	50
33	813821243036	248035	MUZIFA MUBARAK ALI. M	MQ	NIL	8	68	76	68	80	84	82	60	74	64	70	80	76	60	62	54	80	82	62
34	813821243037	248036	NAFEES AHAMED. A	MQ	NIL	7.4659	34	36	36	76	28	16	24	32	20	38	44	50	30	40	42	50	38	50
35	813821243038	248037	PERARULALAN. V	GQ	NIL	8.053	56	60	60	88	52	72	38	38	32	52	56	50	32	50	38	50	56	40
36	813821243039	248038	PRAVIN. R F	GQ	NIL	8.2348	60	56	70	76	20	66	50	56	42	0	80	50	18	32	62	40	58	60
37	813821243040	248039	RABINSON. G	GQ	NIL	8.4015	80	68	86	100	64	78	62	82	56	70	80	66	62	52	88	82	72	76
38	813821243041	248040	RAGHAVENDRA. M	GQ	NIL	7.4773	26	26	A	36	20	A	38	52	8	56	62	12	50	34	32	60	44	22
39	813821243042	248041	RAJA CHOLAN	GQ	1	*	28	22	34	50	30	64	14	38	6	50	52	8	12	32	22	38	54	13
40	813821243043	248042	RISHIKAANDH DEVADOSS	MQ	NIL	7.697	50	40	64	68	64	72	50	34	50	54	64	50	36	36	54	48	52	30
41	813821243044	248043	ROSHAN KUMAR. B	MQ	NIL	8.2197	58	78	80	84	70	84	50	60	44	66	58	54	68	62	56	70	78	38
42	813821243045	248044	RUPA SRI VARSINI. R	MQ	NIL	8.9318	82	90	88	100	96	A	68	90	94	92	98	92	86	94	78	94	100	A
43	813821243046	248045	SAI ACHALAA. S A	GQ	NIL	7.9432	54	68	52	96	54	56	62	50	18	44	70	28	36	62	18	66	64	40
44	813821243047	248046	SEENIVASA PERUMAL. N	GQ	NIL	7.7803	58	52	52	76	60	56	A	32	50	64	50	64	52	52	50	66	64	68
45	813821243048	248047	SHANMUGAPANDIYAN. A	MQ	NIL	7.9242	54	56	54	76	64	72	58	54	30	72	72	30	70	42	70	50	66	54
46	813821243049	248048	SOORIYA PRABHU. M	MQ	NIL	7.3258	40	20	20	A	42	A	20	36	10	54	58	10	20	50	18	50	60	0
47	813821243050	248049	SOWMIYA. T	GQ	NIL	8.3561	78	70	58	74	76	76	60	78	52	70	78	64	84	80	68	76	76	58

48	813821243051	248050	SRI SABARI. I.T	GQ	1	*	50	66	60	88	22	16	40	56	32	0	58	32	50	56	28	42	62	24
49	813821243052	248051	SUBHALAKSHMI. A	GQ	NIL	8.697	82	80	66	96	76	96	74	78	80	78	76	86	82	68	84	88	36	90
50	813821243053	248052	SUDHANTHIRAN. N	GQ	NIL	7.8485	34	52	42	36	50	60	12	12	4	32	40	12	6	0	22	22	40	56
51	813821243054	248053	SUDHARSAN. K	GQ	NIL	7.5758	54	34	42	74	18	50	56	50	4	50	64	14	38	50	20	66	70	50
52	813821243055	248054	SUJI. S	GQ	NIL	8.2386	66	54	70	84	74	96	56	74	58	84	92	84	72	68	72	70	86	76
53	813821243056	248055	SURESH. S	GQ	NIL	7.7992	50	A	50	72	0	58	54	18	42	44	A	50	56	0	50	54	A	60
54	813821243057	248056	TEJASRAM. B	MQ	NIL	8.2045	50	68	A	A	52	12	14	50	30	50	60	A	20	32	A	50	54	A
55	813821243058	248057	THEO SAVIO. M J	GQ	NIL	8.5455	86	92	86	100	78	94	80	88	76	86	94	90	74	76	80	82	92	94
56	813821243059	248058	VETRIVELAN M	GQ	NIL	7.9053	50	58	20	46	14	24	68	62	18	80	72	A	62	60	14	54	74	28
57	813821243060	248059	VIGNESHWARAN. S	MQ	NIL	7.6402	50	50	20	68	34	56	50	44	24	60	46	36	0	50	24	36	50	A
58	813821243061	248060	VIJI. R	GQ	NIL	8.5455	74	82	68	100	68	72	64	76	34	92	98	62	64	72	58	86	92	60
59	813821243062	248061	VIMALA. J	MQ	NIL	8.0189	A	A	50	88	36	44	62	52	12	12	74	32	0	50	32	64	62	18
60	813821243063	248062	VISHAL. E	MQ	NIL	7.7765	22	68	50	74	50	36	58	50	10	62	52	18	54	52	50	62	64	A
61	813821243301	248068	AKILAN. S	GQ	1	*	24	38	18	92	50	20	50	18	6	30	50	8	52	12	12	40	58	16
62	813821243302	248065	HEMA. S	GQ	NIL	7.6307	18	30	26	80	38	60	50	58	50	56	52	60	50	38	A	64	72	A
63	813821243305	248064	SHANE STEVE. A	MQ	1	*	18	12	16	64	2	16	24	40	28	26	58	46	24	14	50	18	40	54
No.of Failures(<50)							17	14	12	6	18	12	11	16	33	16	6	17	20	18	19	13	7	19

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '6' and b.sec = 'A' and b.semperiod = '23-24EVEN' and b.branch = 'AID' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:AID Semester:6 Section:A

Semester Period:23-24EVEN

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CCS336-kayal-aids				CCS365-sridevi-aid				CCS372-anitadorothy-aid				CCW332-dineshkumar-cse				CS3691-malaisamy-ece			
							A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5
1	813821243001	248001	AASHIFA PARVEEN. A	MQ	NIL	9.25	94	92	92		100	96	96		94	94	74		92	90	94	100	80	94	90	
2	813821243002	248002	ABINAYAA . M K	MQ	1	*	40	62	54		A	58	86		30	66	60		A	72	74	95	A	50	60	
3	813821243003	248003	AFRA SHIREEN. N	MQ	NIL	8.4848	90	92	78		98	88	80		94	94	66		94	94	88	100	50	88	80	
4	813821243004	248004	AJAY ABISHEK. M	GQ	NIL	7.7386	52	60	18		40	62	84		84	64	74		56	54	50	92	58	84	68	
5	813821243005	248005	AKSHIYA VAIBHAVI. S	MQ	NIL	8.3182	76	76	64		76	76	60		92	96	80		66	70	76	96	76	92	74	
6	813821243006	248006	AMARNATH. S	GQ	NIL	8.6629	92	94	80		100	56	100		94	96	74		92	86	90	98	52	94	90	
7	813821243007	248007	AMBIKA. K	GQ	NIL	8.3485	94	92	86		100	92	88		94	96	74		92	88	92	100	64	88	90	
8	813821243008	248008	ANTO JERUSHA. J	MQ	NIL	7.7803	50	62	62		84	56	60		80	76	66		56	56	60	91	50	56	66	
9	813821243010	248010	AYSHA SUMIYA	GQ	NIL	8.8561	92	90	80		100	86	100		90	96	88		90	90	94	97	50	96	86	
10	813821243011	248011	BHAVADHARANI. A	MQ	NIL	8.0682	60	82	82		84	50	80		76	74	64		74	86	76	95	54	86	86	
11	813821243012	248012	DEVAPRASATH. K	MQ	NIL	7.3485	64	72	56		56	16	24		76	64	12		40	38	16	92	42	80	62	
12	813821243014	248014	DHARSENI. A	GQ	NIL	8.0189	66	74	62		60	64	A		82	68	A		58	74	72	93	50	82	82	
13	813821243015	248015	DHARSHAN. A	MQ	NIL	7.7424	A	56	68		50	40	76		62	50	42		38	58	76	95	30	62	74	
14	813821243017	248017	DHIVYA. R	MQ	NIL	7.8674	60	60	52		90	88	88		84	64	68		52	58	70	95	44	76	82	
15	813821243018	248063	EDISON. S	MQ	NIL	7.803	54	50	42		30	20	36		78	58	54		40	58	40	91	50	66	70	
16	813821243019	248018	HAMILTON INFANT. A	MQ	1	*	56	66	58		A	60	62		62	80	24		42	56	56	94	40	58	76	
17	813821243020	248019	HARINEE. S G	MQ	NIL	8.4621	90	94	A		84	80	A		94	88	A		64	82	A	100	60	A	A	
18	813821243021	248020	HILDA DEVAPRIYAM .X	GQ	NIL	8.7652	88	92	78		64	84	84		78	64	A		76	90	A	100	64	72	80	
19	813821243022	248021	ILLAKYA VARNAA. N	MQ	1	*	52	54	28		24	28	38		68	50	44		54	34	50	94	32	42	50	
20	813821243023	248022	INDHUMATHI. R	GQ	NIL	7.9697	64	80	50		72	68	76		78	70	54		66	56	76	95	54	56	50	
21	813821243024	248023	JANANI. D	GQ	NIL	9.0682	92	92	88		92	96	84		94	90	70		84	82	80	100	72	90	86	
22	813821243025	248024	JAYANDRAKUMAR. S	MQ	3	*	50	58	50		10	0	0		72	50	36		34	14	10	91	14	46	52	
23	813821243026	248025	JEEVITHA. B	GQ	1	*	64	68	56		50	62	68		76	84	64		52	60	50	93	38	62	56	
24	813821243027	248026	JOEL GIFTSON. J	MQ	NIL	7.6667	72	52	78		60	52	84		88	70	A		34	50	72	92	40	84	64	
25	813821243028	248027	KARTHIK SRIRAM. B A	GQ	NIL	8.2576	74	72	58		62	68	80		76	72	50		56	74	76	98	72	82	74	
26	813821243029	248028	KARUNIYA. P	MQ	NIL	7.7386	64	54	44		50	20	50		A	50	58		54	38	A	92	24	74	60	
27	813821243030	248029	KEERTHANA. D	GQ	NIL	7.6894	50	46	50		32	60	80		74	72	52		36	68	76	98	38	64	50	
28	813821243031	248030	KEERTHANA. T	MQ	NIL	8.2121	80	92	92		72	58	96		84	74	84		72	64	84	98	52	88	82	
29	813821243032	248031	LAVANYA. R	GQ	NIL	8.5455	94	90	90		88	84	80		94	98	92		82	90	94	100	72	88	90	
30	813821243033	248032	MADULIKA. P S	GQ	NIL	8.1742	76	78	88		68	70	60		90	78	50		62	66	90	98	52	88	84	
31	813821243034	248033	MALINI. S	GQ	NIL	8.1818	84	90	88		96	84	92		86	98	A		72	92	92	98	64	86	90	
32	813821243035	248034	MOUNIKA. R	GQ	NIL	7.4886	50	A	60		68	80	A		88	88	84		50	36	A	92	56	A	78	
33	813821243036	248035	MUZIFA MUBARAK ALI. M	MQ	NIL	8	84	92	80		84	84	88		92	70	84		64	88	88	96	60	88	72	
34	813821243037	248036	NAFEES AHAMED. A	MQ	NIL	7.4659	A	20	28		A	34	44		A	54	A		A	50	34	94	A	38	50	
35	813821243038	248037	PERARULALAN. V	GQ	NIL	8.053	56	66	50		56	40	60		66	64	62		66	72	58	97	34	64	80	
36	813821243039	248038	PRAVIN. R F	GQ	NIL	8.2348	62	76	74		40	32	68		84	58	62		60	72	66	97	38	76	84	
37	813821243040	248039	RABINSON. G	GQ	NIL	8.4015	90	90	74		88	86	A		86	80	38		74	74	76	100	52	84	82	
38	813821243041	248040	RAGHAVENDRA. M	GQ	NIL	7.4773	42	46	26		16	0	20		76	22	12		28	16	A	93	46	26	56	
39	813821243042	248041	RAJA CHOLAN	GQ	1	*	16	32	50		8	4	20		50	4	6		28	20	40	91	28	38	A	
40	813821243043	248042	RISHIKAANDH DEVADOSS	MQ	NIL	7.697	74	54	52		24	50	0		70	50	50		40	50	58	92	18	36	68	
41	813821243044	248043	ROSHAN KUMAR. B	MQ	NIL	8.2197	70	66	58		50	80	72		76	78	60		64	54	54	100	52	66	54	
42	813821243045	248044	RUPA SRI VARSINI. R	MQ	NIL	8.9318	96	96	94		100	96	100		94	96	94		86	88	94	100	74	A	90	
43	813821243046	248045	SAI ACHALAA. S A	GQ	NIL	7.9432	84	90	66		56	38	76		84	86	A		88	88	82	97	52	70	66	
44	813821243047	248046	SEENIVASA PERUMAL. N	GQ	NIL	7.7803	66	66	74		54	52	40		66	50	34		A	A	50	94	56	56	60	
45	813821243048	248047	SHANMUGAPANDIYAN. A	MQ	NIL	7.9242	58	64	26		32	28	24		78	74	22		36	28	50	91	42	80	68	
46	813821243049	248048	SOORIYA PRABHU. M	MQ	NIL	7.3258	60	54	0		A	20	A		A	60	2		A	14	2	91	8	8	8	
47	813821243050	248049	SOWMIYA. T	GQ	NIL	8.3561	58	88	64		78	78	84		90	92	82		76	72	82	100	76	88	74	
48	813821243051	248050	SRI SABARI. I.T	GQ	1	*	60	82	50		0	50	50		78	68	40		A	54	A	92	20	54	54	
49	813821243052	248051	SUBHALAKSHMI. A	GQ	NIL	8.697	88	94	90		88	88	56		90	96	76		84	84	A	100	52	82	62	

50	813821243053	248052	SUDHANTHIRAN. N	GQ	NIL	7.8485	64	A	6		24	A	12		78	A	34		36	A	14	92	22	A	30	
51	813821243054	248053	SUDHARSAN. K	GQ	NIL	7.5758	64	72	24		52	52	40		62	62	16		50	50	20	91	56	64	66	
52	813821243055	248054	SUJI. S	GQ	NIL	8.2386	80	80	78		52	68	84		88	88	84		68	78	A	91	64	84	82	
53	813821243056	248055	SURESH. S	GQ	NIL	7.7992	60	46	50		28	20	24		62	28	22		56	56	42	92	36	50	40	
54	813821243057	248056	TEJASRAM. B	MQ	NIL	8.2045	50	50	10		28	60	A		50	76	A		52	52	28	97	26	64	A	
55	813821243058	248057	THEO SAVIO. M J	GQ	NIL	8.5455	80	78	80		88	88	80		92	92	68		80	86	82	98	64	82	84	
56	813821243059	248058	VETRIVELAN M	GQ	NIL	7.9053	62	80	14		16	12	16		78	66	24		54	50	A	91	38	38	68	
57	813821243060	248059	VIGNESHWARAN. S	MQ	NIL	7.6402	50	60	36		24	34	28		74	56	A		50	A	A	92	44	78	60	
58	813821243061	248060	VIJI. R	GQ	NIL	8.5455	92	92	66		56	88	72		94	90	84		70	70	66	100	74	86	60	
59	813821243062	248061	VIMALA. J	MQ	NIL	8.0189	50	60	38		20	40	8		A	36	38		50	50	4	92	24	68	54	
60	813821243063	248062	VISHAL. E	MQ	NIL	7.7765	70	60	34		A	16	0		A	68	24		A	52	A	92	A	40	36	
61	813821243301	248068	AKILAN. S	GQ	1	*	78	56	28		16	8	24		80	70	14		8	34	2	94	42	68	8	
62	813821243302	248065	HEMA. S	GQ	NIL	7.6307	52	A	26		26	34	20		68	A	66		36	50	40	92	A	68	50	
63	813821243305	248064	SHANE STEVE. A	MQ	1	*	56	74	42		0	0	0		68	78	72		34	14	24	93	28	26	50	
No.of Failures(<50)							3	5	17	0	19	21	19	0	1	4	18	0	15	10	13	0	25	10	4	0

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.23.11.2023

Circular

Internal Assessment **Test – 2** for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 27.11.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – FIRST HOUR

11.50 a.m. – 12.45 p.m. – SECOND HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.23.11.2023

Circular

Internal Assessment Test – 2 for FIRST YEAR (FIRST SEMESTER) B.E./B.Tech., Classes will commence from 27.11.2023 (MONDAY) as per the time table attached.

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Tiruchirapalli – 12

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Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli -12

First Semester Internal Assessment Test 2 Schedule

S.No.	Date	Sub.Code.	Subject Name
1	27.11.2023	HS3152	Professional English – I
2	28.11.2023	CY3151	Engineering Chemistry
3	30.11.2023	GE3151	Problem Solving and Python Programming
4	1.12.2023	MA3151	Matrices and Calculus
5	4.12.2023	PH3151	Engineering Physics

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
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CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - 3			Date/ Session	06.06.24/ FN	Marks	50
Course code	**CE3403**	**Course Title**	**Concrete Technology**			
Batch No.		**Duration**	**90 mins**	**Academic Year**	2023-2024	
Year/	II	**Semester/ Section**	**IV / A**	**Department**	**Civil Engineering**	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Write the relation between the compressive strength and flexural strength.	C212.6	U
2	Give reasons for the variation in compressive strength of the samples of the same mix.	C212.6	R
3	What are the factors which are affecting the setting time of concrete?	C212.6	U
4	List the factors affecting the workability of concrete.	C212.4	R
5	What is fresh concrete?	C212.4	U
6	Define Laitance.	C212.4	U
7	What are the causes of bleeding and segregation?	C212.4	U
8	List any 2 applications of heavy weight concrete.	C212.5	U
9	What are the different types of polymer concrete?	C212.5	U
10	Compare light weight concrete with ordinary concrete.	C212.5	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Identify the casting techniques of Ferro cement.	C212.5	U
	Or		
12	Explain about self compacting concrete and Shotcrete	C212.5	U
13	Explain in detail any 2 workability tests with neat sketches.	C212.4	U
	Or		
14	Explain in detail about segregation and bleeding of concrete.	C212.4	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail the process of manufacturing of light weight concrete. Explain the special materials needed for making light weight concrete.	C212.6	U
	Or		
16	Explain the various experiments conducted on hardened concrete.	C212.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – I			Date/ Session	27.02.24/ FN	Marks	50
Course code	AG3601	Course Title	Engineering Geology			
Batch No.		Duration	90 mins.	Academic Year	2023 – 2024 (EVEN)	
Year	III	Semester/ Section	VI / A	Department	Civil Engineering	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw Geology.	C312.1	R
2	List out various branches and sub branches of geology.	C312.1	R
3	Define Weathering and list their types.	C312.1	R
4	What are sand dunes?	C312.1	U
5	What is meant aeolian land forms?	C312.1	U
6	Define mineral.	C312.2	R
7	What is meant by Crystallography?	C312.2	R
8	List out various physical properties of minerals.	C312.2	R
9	What is meant by specific gravity of mineral?	C312.2	R
10	List some feldspar group minerals.	C312.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain briefly about various branches of geology.	C312.1	R
	Or		
12	Explain briefly about internal structure of earth with neat sketch.	C312.1	U
13	Explain briefly about various types of weathering.	C312.1	R
	Or		
14	List out seven major tectonic plate also explain in detail about their movements below the earth surface.	C312.1	U
	Part – C (1 x 10 =10)		
15	Explain briefly about various physical properties of minerals with examples.	C312.2	R
	Or		
16	Explain briefly about various structures of minerals with neat sketch .	C312.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date	29-02-2024	Marks	50
Course code	CE3601	Course Title	Design of Steel Structural Elements			
Batch No.		Duration	90 mins	Academic Year	2023-2024(Even)	
Year	III	Semester/ Section	VI /A	Department	CIVIL	

Part – A

(Answer all the questions 10 x 2 = 20marks)

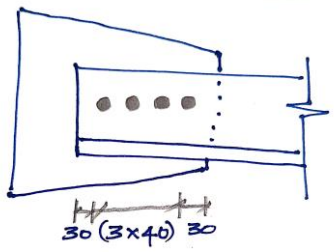
Q. No.	Questions	CO	Skills
1	List the hot rolled sections used in practice.	C310.1	U
2	What are the three classifications of loads as per IS800-2007?	C310.1	R
3	What are the factors that influence the behaviour of connections?	C310.1	U
4	What is meant by HSFG bolts?	C310.1	R
5	Define efficiency of joint.	C310.1	U
6	List four types of welds.	C310.1	U
7	Define Gauge distance.	C310.2	U
8	When a member called tension member?	C310.2	R
9	Mention the factors that influence the strength of tension member.	C310.2	R
10	List some of the tension members used in buildings.	C310.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	What are the different types of steel sections used for structural steel? Explain with neat sketches.	C310.1	U
	OR		
12	Design a double bolted, double cover butt joint to connect the plates of thickness 12mm. the joint has to transfer the design load of 750kN use M16 bolt of grade 4.6 and Fe410 grade steel plates.d\	C310.1	A
13	Design a welded connection to connect two plates of width 180mm and thickness 10mm for 100% efficiency.	C310.1	A
	OR		
14	A tie member consists of two channel sections of ISMC350. The channels are connected on either sides of 10mm thick gusset plate. Design the welded joint to develop the full strength of the tie member. The overlap distance is limited to 350mm.	C310.1	A

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A single angle ISA100 x 75 x 10mm is connected to a 10mm gusset plate at the ends with 4 Nos of 16mm diameter bolts as shown in fig. to transfer a tension. Determine the design strength of the angle. The 100mm side of the angle is connected with the gusset plate. 	C310.2	A
	OR		
16	Explain in detail about the sequence of design of tension members.	C310.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Saranathan College of Engineering
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Internal Assessment Test - I			Date	23-02-2023	Marks	50
Course code	CE3013	Course Title	Advanced Construction Techniques			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	06 /A	Department	CIVIL	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the uses of sheet piles?	C314PE5V26.1	U
2	What is mucking?	C314PE5V26.1	U
3	What are the advantages of drift method.	C314PE5V26.1	U
4	Write short notes on diaphragm wall.	C314PE5V26.2	R
5	Enumerate sinking coffer dam.	C314PE5V26.2	U
6	What is a caisson? What are the types of caisson?	C314PE5V26.2	R
7	What is slipform. Write any one advantage of the same.	C314PE5V26.3	R
8	How are domes erected?	C314PE5V26.3	U
9	Define post tensioning.	C314PE5V26.3	R
10	What are the launching techniques for heavy decks?	C314PE5V26.3	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Describe in detail about piling techniques and its types.	C314PE5V26.1	R
	OR		
12	Explain the method of sinking a pneumatic Caisson.	C314PE5V26.1	R
13	Describe the various methods of underwater concreting.	C314PE5V26.2	U
	OR		
14	Describe the various methods of dewatering system.	C314PE5V26.2	U

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Briefly explain the erection procedure of light weight components on tall structures.	C314PE5V26.3	U
	OR		
16	Explain insitu prestressing in high rise structures.	C314PE5V26.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III		**Date/ Session**	**05.06.24/ FN**	**Marks**	**50**
Course code	**CE3405**	**Course Title**	**Highway And Railway Engineering**		
Batch No.		**Duration**	**90 mins.**	**Academic Year**	**2023 – 2024 (EVEN)**
Year	**II**	**Semester/ Section**	**IV / A**	**Department**	**Civil Engineering**

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw and mention the various components of permanent way.	C214.4	R
2	What are the various ideal requirements of good sleeper.	C214.4	U
3	List out various functions of rails.	C214.4	R
4	What is meant by gradient in permanent way.List their types.	C214.4	R
5	Define level crossing.list their types.	C214.4	R
6	What is points and crossings?	C214.5	U
7	Define rolling stock?	C214.5	R
8	List some roles of Indian railway for economical development.	C214.5	U
9	Define Track stress and list their types.	C214.5	R
10	What is meant by LRT and MRT?	C214.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain briefly about route alignment survey for constructing new railway project.	C214.4	U
	Or		
12	Define signal.list their types also explain in detail with neat sketch.	C214.4	U
13	Explain briefly about points and crossings with neat sketches.	C214.5	R
	Or		
14	Explain briefly about step by step procedure for modern method of railway construction.	C214.5	U
	Part – C **(Answer the following question 1 x 10=10marks)**		
15	Draw the layout of railway station and also explain about the types of railway station.	C214.6	R
	Or		
16	Explain briefly about the track maintenance and track stresses.	C214.6	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Vision of the D

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	T. Manimozhi			Year / Semester / Section	III / VI / A
Batch No.	247012	Date / Session	29.4.24/FN	Department	Civil
Course Code	CE3009	Course Title	Construction Equipment and Machinery		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	K. Gomathi			29/4/24.	

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	9			9
3	✓	2	13	✓	9			9
4	✓	2	14					
5	✓	2	15					
6	✓	2	16	✓	8			8
7	✓	2					Total	26
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

46 / 50 Grand Total

29/4/24 K. Jothiga Pushpa Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				40	40	20	100
Marks Obtained				38	38	16	92

QAC Audit - Remarks

NIL

R. SURESH BABU

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. Nhirarthika			Year / Semester / Section	II/IV/A
Batch No.	257009	Date / Session	7.5.24/FN	Department	CIVIL
Course Code	CE3403	Course Title	Concrete Technology		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 5
Name and Signature of the Invigilator with date	M. Thangs				7/5/24

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	8			8
5	✓	2	15					
6	✓	2	16	✓	10			10
7	✓	2					Total	27
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

47 / 50 Grand Total

K. Barthya Partha

7/5/24 Name and Signature of the Examiner with date

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes							100
Marks allotted		64	36				94
Marks Obtained		58	36				

QAC Audit - Remarks

NIL

R. SURESH BABU

Name and Signature of the QAC member

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '3' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'CIVIL' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:CIVIL Semester:3 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CE3301-anandraj-ce			CE3302-venkatesan-ce			CE3303-kesavaraja-ce			CE3351-kannan-ce			MA3351-geetha-mat			ME3351-vaishali-ce		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813822103001	257001	AKSHAYA DEEPTHI. A	GQ	NIL	7.5361	36	58	68	A	52	72	A	62	52	76	64	62	44	52	50	50	68	A
2	813822103003	257003	ASWIN. B	MQ	3	*	68	90	56	38	A	66	52	64	72	70	64	62	74	70	50	50	66	68
3	813822103004	257004	JAYAVARTHAN. V	MQ	20	*	66	38	30	12	22	30	28	22	12	58	34	50	42	20	0	30	30	60
4	813822103005	257005	LAVANYA. A	MQ	NIL	8.2577	88	94	50	90	100	90	84	86	58	96	52	56	44	50	24	76	70	A
5	813822103006	257006	MANEESHWARI. G N	GQ	NIL	7.6598	44	80	0	70	76	A	66	66	34	58	50	A	60	52	A	52	52	A
6	813822103007	257007	MANOJ PRASHANAA. V	MQ	NIL	7.5103	64	76	72	78	80	64	64	78	34	62	50	64	18	36	50	44	60	64
7	813822103008	257008	MARIS. R	GQ	1	*	A	90	66	64	62	56	70	68	54	78	62	64	82	82	50	66	80	80
8	813822103009	257009	NHIVAETHIHA. S	MQ	NIL	8.5155	100	90	100	88	80	78	92	86	78	92	98	90	76	88	A	90	88	90
9	813822103010	257010	NITHESHWARAN. S G	GQ	NIL	7.0309	54	60	A	64	66	60	A	50	28	A	50	50	36	32	14	40	52	A
10	813822103011	257011	PAVITHRA. K	GQ	NIL	7.7732	54	58	74	A	52	54	72	50	32	90	94	82	72	88	66	72	58	A
11	813822103012	257012	PAVITHRAN. K	GQ	NIL	8.1443	70	90	72	68	74	80	70	82	68	88	74	74	70	72	50	50	68	78
12	813822103014	257014	PRAVEEN KUMAR. P	GQ	6	*	40	64	50	28	68	58	54	50	40	70	50	44	50	38	10	36	50	40
13	813822103015	257015	SANTHOSINI. V	GQ	NIL	8.1031	68	74	96	68	68	84	66	64	78	74	76	86	76	72	56	60	70	86
14	813822103016	257016	SHAMCHARAN. R	GQ	NIL	7.7216	20	72	38	74	68	68	52	50	64	38	60	50	8	30	24	56	60	74
15	813822103017	257017	SRI MAADHAVAN. B V	MQ	9	*	A	20	32	A	40	50	A	12	34	A	30	50	10	14	0	A	26	50

16	813822103018	257018	SUBHASH MADHAVAN. S	GQ	NIL	7.799	56	68	44	44	86	68	80	68	74	68	62	72	64	50	14	54	56	84
17	813822103019	257019	THILAGARAJ. A	GQ	2	*	42	54	52	32	60	60	44	38	A	50	20	70	56	34	10	24	28	72
18	813822103020	257020	VISHVANTH. S	MQ	2	*	36	84	12	56	42	60	58	50	34	34	14	50	36	20	20	28	38	50
19	813822103301	257021	MAKESH. S	GQ	NIL	8.551	76	78	96	90	80	90	94	98	86	98	70	80	76	74	32	92	92	80
20	813822103302	257022	MOHAMED IKRAM. S	GQ	3	*	30	44	A	42	72	54	A	50	30	26	52	54	38	22	0	10	30	50
No.of Failures(<50)							6	2	6	5	3	1	2	3	8	2	4	1	8	8	10	6	4	1

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '5' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'CIVIL' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:CIVIL Semester:5 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CE3003-sathyaprabha-ce			CE3005-vaishali-ce			CE3025-anandraj-ce			CE3501-venkatesan-ce			CE3502-sathyaprabha-ce			CE3503-kannan-ce			MX3084-kesavaraja-ce		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813821103001	247001	AMARNATH PRAVEEN. M	GQ	NIL	7.6165	94	94	90	66	66	72	76	80	68	58	82	62	72	86	88	64	72	72			
2	813821103002	247002	AMEERUDEEN. K	GQ	2	*	86	92	78	64	62	52	32	62	60	16	30	60	50	64	54	40	36	56			
3	813821103003	247003	ARUN KUMAR. P	MQ	NIL	7.8615	58	72	60	64	54	52	20	68	62	54	62	62	56	68	68	34	34	32			
4	813821103004	247004	DHEENADHAYALAN. V	GQ	3	*	86	82	50	34	66	A	54	58	60	14	42	50	30	42	50	18	64	52			
5	813821103005	247005	GIRIDHARAN. A	GQ	1	*	56	60	56	26	60	46	40	60	24	52	34	50	36	44	48	36	30	50			
6	813821103006	247006	GOKULA KRISHNAN. K S	MQ	2	*	92	70	38	58	52	A	52	72	50	32	22	18	30	26	40	40	30	18			
7	813821103007	247007	GOKULESH. S	GQ	2	*	74	82	68	72	64	72	60	82	54	50	38	44	38	68	48	50	32	58			
8	813821103008	247008	HARINI. E L	MQ	NIL	7.9248	94	94	86	80	72	86	66	58	68	72	60	44	50	80	76	70	50	52			
9	813821103009	247009	JAFFREY SAMUEL. F	GQ	1	*	70	64	44	20	50	54	34	30	52	38	50	28	30	68	58	50	50	24			
10	813821103010	247010	LIJO SOOSAI. S	GQ	NIL	8.4361	92	76	80	82	88	74	76	88	76	76	94	76	80	90	80	76	88	82			
11	813821103011	247011	LYDIA MARY VINCENT AROCKIARAJ	GQ	NIL	8.3158	94	94	84	76	90	92	88	92	76	82	82	72	90	92	84	86	90	88			
12	813821103012	247012	MANIMOZHI. T	GQ	NIL	7.6805	90	78	66	74	58	72	78	72	60	54	76	56	64	58	68	74	74	70			
13	813821103013	247013	MOHAMED ASHFAK. U	MQ	1	*	64	80	80	50	62	24	52	56	20	50	66	56	30	58	58	38	58	38			
14	813821103014	247014	MOHAMMED FARIZ. M	MQ	1	*	66	64	56	40	50	50	60	60	54	60	66	40	36	52	22	56	50	50			
15	813821103015	247015	MUGESH. M	MQ	1	*	80	78	62	50	50	50	30	62	32	26	24	50	52	72	40	70	30	24			
16	813821103016	247016	NAVEEN KUMAR. P	GQ	4	*	58	70	58	20	56	28	36	54	14	36	38	20	30	56	32	40	38	30			
17	813821103017	247017	SANJAY. R	MQ	1	*	58	A	62	50	70	70	42	52	70	36	38	26	30	64	46	40	20	32			
18	813821103018	247018	SANTHOSH. M	MQ	11	*	58	50	60	26	A	42	42	A	62	40	40	34	16	46	50	40	22	24			
19	813821103019	247019	SATHISH KUMAR. D	MQ	NIL	7.8011	70	A	A	52	A	A	68	A	A	50	A	A	50	A	A	76	A	A			

20	813821103020	247020	SATHYA. M E	MQ	NIL	7.8045	84	86	82	56	78	72	52	74	82	56	84	56	60	68	62	54	74	60			
21	813821103021	247021	SRINITHI. E	MQ	NIL	8.5263	94	94	86	84	92	74	82	90	58	84	86	70	90	80	90	82	74	64			
22	813821103022	247022	SRINIVASAN. S	MQ	1	*	64	62	38	32	52	22	70	42	38	46	60	38	32	60	50	60	72	50			
23	813821103023	247023	THANGAPRABAKARAN. T	MQ	7	*	30	68	52	22	50	32	16	52	38	34	28	28	30	42	44	40	50	30			
24	813821103024	247024	VENGATESH. V	GQ	1	*	76	68	56	58	72	50	62	86	64	54	74	62	62	68	68	74	66	34			
25	813821103025	247025	VIJAYAPRABHA. K	GQ	NIL	8.7444	94	94	90	96																	

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '7' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'CIVIL' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:CIVIL Semester:7 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CE8701-belin-ce			CE8702-kesavaraja-ce			CE8703-sathyaprabha-ce			OME754-venkatesan-ce		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813820103001	237001	AISHWARYA. R	GQ	NIL	8.5989	72	88	90	70	88	92	80	100	A	84	68	52
2	813820103003	237002	ANTONY ALDRIN	MQ	NIL	7.6044	A	A	64	A	A	82	A	68	A	80	68	A
3	813820103005	237005	ARANGARAJAN. R	GQ	NIL	8.1978	58	66	50	16	34	78	62	80	8	66	56	12
4	813820103006	237006	DHANUSH. K	GQ	NIL	7.5	A			0			A			A		
5	813820103007	237007	ELAKKIYA. E	GQ	NIL	8.4286	70	78	68	54	50	74	70	70	60	86	68	40
6	813820103008	237008	GOKUL. R	MQ	NIL	8.033	56	62	44	34	50	80	66	14	16	68	50	36
7	813820103009	237009	GOWTHAM. R	MQ	NIL	8.033	A	86	44	66	90	86	8	64	12	86	70	40
8	813820103010	237010	KAMALESHWARAN. M	GQ	NIL	7.905	52	54	52	26	32	A	60	60	8	58	38	16
9	813820103011	237011	KANIHA. R	GQ	NIL	8.3626	74	78	84	52	50	94	96	100	A	94	68	54
10	813820103012	237012	KISHOR. A R	MQ	NIL	8.052	70	62	60	40	54	A	70	20	20	92	62	52
11	813820103013	237013	MAGESH. S	MQ	NIL	8.2527	76	70	50	70	78	84	96	96	70	82	66	68
12	813820103014	237014	NANTHESWARAN. A	GQ	NIL	7.7765	12	50	52	20	32	76	4	64	4	60	58	18
13	813820103015	237015	PREETHI. J	GQ	NIL	8.1264	50	86	20	20	40	18	70	50	A	92	56	60
14	813820103016	237016	RAGHUL. A	GQ	NIL	8.4835	72	78	82	34	52	76	70	100	50	70	76	84
15	813820103017	237017	RAJA. A	MQ	NIL	8.0385	68	68	62	68	68	78	70	70	A	78	66	6
16	813820103018	237018	SANCHAYAN. S	MQ	NIL	8.2308	92	90	90	92	96	100	100	100	A	86	84	82
17	813820103020	237020	SARUPRABHA. E	GQ	NIL	8.4066	72	82	88	54	60	98	80	100	100	96	84	84
18	813820103022	237022	SRIVARSAN. S	GQ	NIL	7.8239	68	60	26	26	50	54	20	60	8	68	54	36
19	813820103023	237023	SUMESH. S	GQ	NIL	7.8268	A	72	A	58	24	36	4	20	A	62	52	24

20	813820103024	237024	SUPER SUKUMARAN. N	GQ	NIL	8.0934	74	54	A	60	34	68	64	74	4	80	52	56
21	813820103025	237025	THAVANESHAN. V S	GQ	NIL	8.0604	80	64	60	50	42	74	74	68	8	72	64	60
22	813820103301	237026	NARENDRAN. M	MQ	NIL	7.4167	58	50	64	50	56	74	60	84	50	72	52	52
23	813820103302	237027	YUVARAJAN. R	GQ	NIL	7.5303	32	50	58	18	12	64	66	50	0	44	8	16
24	813820103701	237028	PAVITHRA. J	MQ	NIL	8.5119	70	88	82	70	58	92	70	100	100	92	74	74
25	813821103501	237003	ANTONY. C J	MQ	NIL	7.6161	A			0			A			A		
No.of Failures(<50)							2	0	4	11	8	2	4	3	10	1	2	10

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli -12

First Semester Internal Assessment Test 2 Schedule

S.No.	Date	Sub.Code.	Subject Name
1	27.11.2023	HS3152	Professional English – I
2	28.11.2023	CY3151	Engineering Chemistry
3	30.11.2023	GE3151	Problem Solving and Python Programming
4	1.12.2023	MA3151	Matrices and Calculus
5	4.12.2023	PH3151	Engineering Physics

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - 3			Date/ Session	06.06.24/ FN	Marks	50
Course code	**CE3403**	**Course Title**	**Concrete Technology**			
Batch No.		**Duration**	**90 mins**	**Academic Year**	2023-2024	
Year/	II	**Semester/ Section**	**IV / A**	**Department**	**Civil Engineering**	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Write the relation between the compressive strength and flexural strength.	C212.6	U
2	Give reasons for the variation in compressive strength of the samples of the same mix.	C212.6	R
3	What are the factors which are affecting the setting time of concrete?	C212.6	U
4	List the factors affecting the workability of concrete.	C212.4	R
5	What is fresh concrete?	C212.4	U
6	Define Laitance.	C212.4	U
7	What are the causes of bleeding and segregation?	C212.4	U
8	List any 2 applications of heavy weight concrete.	C212.5	U
9	What are the different types of polymer concrete?	C212.5	U
10	Compare light weight concrete with ordinary concrete.	C212.5	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Identify the casting techniques of Ferro cement.	C212.5	U
	Or		
12	Explain about self compacting concrete and Shotcrete	C212.5	U
13	Explain in detail any 2 workability tests with neat sketches.	C212.4	U
	Or		
14	Explain in detail about segregation and bleeding of concrete.	C212.4	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail the process of manufacturing of light weight concrete. Explain the special materials needed for making light weight concrete.	C212.6	U
	Or		
16	Explain the various experiments conducted on hardened concrete.	C212.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – I			Date/ Session	27.02.24/ FN	Marks	50
Course code	AG3601	Course Title	Engineering Geology			
Batch No.		Duration	90 mins.	Academic Year	2023 – 2024 (EVEN)	
Year	III	Semester/ Section	VI / A	Department	Civil Engineering	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw Geology.	C312.1	R
2	List out various branches and sub branches of geology.	C312.1	R
3	Define Weathering and list their types.	C312.1	R
4	What are sand dunes?	C312.1	U
5	What is meant aeolian land forms?	C312.1	U
6	Define mineral.	C312.2	R
7	What is meant by Crystallography?	C312.2	R
8	List out various physical properties of minerals.	C312.2	R
9	What is meant by specific gravity of mineral?	C312.2	R
10	List some feldspar group minerals.	C312.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain briefly about various branches of geology.	C312.1	R
	Or		
12	Explain briefly about internal structure of earth with neat sketch.	C312.1	U
13	Explain briefly about various types of weathering.	C312.1	R
	Or		
14	List out seven major tectonic plate also explain in detail about their movements below the earth surface.	C312.1	U
	Part – C (1 x 10 =10)		
15	Explain briefly about various physical properties of minerals with examples.	C312.2	R
	Or		
16	Explain briefly about various structures of minerals with neat sketch .	C312.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date	29-02-2024	Marks	50
Course code	CE3601	Course Title	Design of Steel Structural Elements			
Batch No.		Duration	90 mins	Academic Year	2023-2024(Even)	
Year	III	Semester/ Section	VI /A	Department	CIVIL	

Part – A

(Answer all the questions 10 x 2 = 20marks)

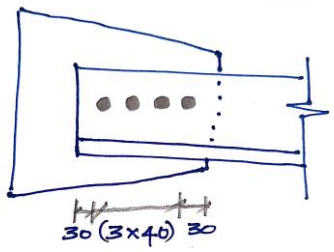
Q. No.	Questions	CO	Skills
1	List the hot rolled sections used in practice.	C310.1	U
2	What are the three classifications of loads as per IS800-2007?	C310.1	R
3	What are the factors that influence the behaviour of connections?	C310.1	U
4	What is meant by HSFG bolts?	C310.1	R
5	Define efficiency of joint.	C310.1	U
6	List four types of welds.	C310.1	U
7	Define Gauge distance.	C310.2	U
8	When a member called tension member?	C310.2	R
9	Mention the factors that influence the strength of tension member.	C310.2	R
10	List some of the tension members used in buildings.	C310.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	What are the different types of steel sections used for structural steel? Explain with neat sketches.	C310.1	U
	OR		
12	Design a double bolted, double cover butt joint to connect the plates of thickness 12mm. the joint has to transfer the design load of 750kN use M16 bolt of grade 4.6 and Fe410 grade steel plates.d\	C310.1	A
13	Design a welded connection to connect two plates of width 180mm and thickness 10mm for 100% efficiency.	C310.1	A
	OR		
14	A tie member consists of two channel sections of ISMC350. The channels are connected on either sides of 10mm thick gusset plate. Design the welded joint to develop the full strength of the tie member. The overlap distance is limited to 350mm.	C310.1	A

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A single angle ISA100 x 75 x 10mm is connected to a 10mm gusset plate at the ends with 4 Nos of 16mm diameter bolts as shown in fig. to transfer a tension. Determine the design strength of the angle. The 100mm side of the angle is connected with the gusset plate. 	C310.2	A
	OR		
16	Explain in detail about the sequence of design of tension members.	C310.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date	23-02-2023	Marks	50
Course code	CE3013	Course Title	Advanced Construction Techniques			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	06 /A	Department	CIVIL	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the uses of sheet piles?	C314PE5V26.1	U
2	What is mucking?	C314PE5V26.1	U
3	What are the advantages of drift method.	C314PE5V26.1	U
4	Write short notes on diaphragm wall.	C314PE5V26.2	R
5	Enumerate sinking coffer dam.	C314PE5V26.2	U
6	What is a caisson? What are the types of caisson?	C314PE5V26.2	R
7	What is slipform. Write any one advantage of the same.	C314PE5V26.3	R
8	How are domes erected?	C314PE5V26.3	U
9	Define post tensioning.	C314PE5V26.3	R
10	What are the launching techniques for heavy decks?	C314PE5V26.3	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Describe in detail about piling techniques and its types.	C314PE5V26.1	R
	OR		
12	Explain the method of sinking a pneumatic Caisson.	C314PE5V26.1	R
13	Describe the various methods of underwater concreting.	C314PE5V26.2	U
	OR		
14	Describe the various methods of dewatering system.	C314PE5V26.2	U

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Briefly explain the erection procedure of light weight components on tall structures.	C314PE5V26.3	U
	OR		
16	Explain insitu prestressing in high rise structures.	C314PE5V26.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III		**Date/ Session**	**05.06.24/ FN**	**Marks**	**50**
Course code	**CE3405**	**Course Title**	**Highway And Railway Engineering**		
Batch No.		**Duration**	**90 mins.**	**Academic Year**	**2023 – 2024 (EVEN)**
Year	**II**	**Semester/ Section**	**IV / A**	**Department**	**Civil Engineering**

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw and mention the various components of permanent way.	C214.4	R
2	What are the various ideal requirements of good sleeper.	C214.4	U
3	List out various functions of rails.	C214.4	R
4	What is meant by gradient in permanent way.List their types.	C214.4	R
5	Define level crossing.list their types.	C214.4	R
6	What is points and crossings?	C214.5	U
7	Define rolling stock?	C214.5	R
8	List some roles of Indian railway for economical development.	C214.5	U
9	Define Track stress and list their types.	C214.5	R
10	What is meant by LRT and MRT?	C214.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain briefly about route alignment survey for constructing new railway project.	C214.4	U
	Or		
12	Define signal.list their types also explain in detail with neat sketch.	C214.4	U
13	Explain briefly about points and crossings with neat sketches.	C214.5	R
	Or		
14	Explain briefly about step by step procedure for modern method of railway construction.	C214.5	U
	Part – C **(Answer the following question 1 x 10=10marks)**		
15	Draw the layout of railway station and also explain about the types of railway station.	C214.6	R
	Or		
16	Explain briefly about the track maintenance and track stresses.	C214.6	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Vision of the D

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	T. Manimozhi			Year / Semester / Section	III / VI / A
Batch No.	247012	Date / Session	29.4.24/FN	Department	Civil
Course Code	CE3009	Course Title	Construction Equipment and Machinery		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	K. Gomathi			29/4/24.	

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	9			9
3	✓	2	13	✓	9			9
4	✓	2	14					
5	✓	2	15					
6	✓	2	16	✓	8			8
7	✓	2					Total	26
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

46 / 50 Grand Total

29/4/24 K. Jothiga Pushpa Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				40	40	20	100
Marks Obtained				38	38	16	92

QAC Audit - Remarks

NIL

R. SURESH BABU

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. Nhirarthika			Year / Semester / Section	II/IV/A
Batch No.	257009	Date / Session	7.5.24/FN	Department	CIVIL
Course Code	CE3403	Course Title	Concrete Technology		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 5
Name and Signature of the Invigilator with date	M. Thangs				7/5/24

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	8			8
5	✓	2	15					
6	✓	2	16	✓	10			10
7	✓	2					Total	27
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

47 / 50 Grand Total

K. Barthya Partha

7/5/24 Name and Signature of the Examiner with date

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes							100
Marks allotted		64	36				94
Marks Obtained		58	36				

QAC Audit - Remarks

NIL

R. SURESH BABU

Name and Signature of the QAC member

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '3' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'CIVIL' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:CIVIL Semester:3 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CE3301-anandraj-ce			CE3302-venkatesan-ce			CE3303-kesavaraja-ce			CE3351-kannan-ce			MA3351-geetha-mat			ME3351-vaishali-ce		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813822103001	257001	AKSHAYA DEEPTHI. A	GQ	NIL	7.5361	36	58	68	A	52	72	A	62	52	76	64	62	44	52	50	50	68	A
2	813822103003	257003	ASWIN. B	MQ	3	*	68	90	56	38	A	66	52	64	72	70	64	62	74	70	50	50	66	68
3	813822103004	257004	JAYAVARTHAN. V	MQ	20	*	66	38	30	12	22	30	28	22	12	58	34	50	42	20	0	30	30	60
4	813822103005	257005	LAVANYA. A	MQ	NIL	8.2577	88	94	50	90	100	90	84	86	58	96	52	56	44	50	24	76	70	A
5	813822103006	257006	MANEESHWARI. G N	GQ	NIL	7.6598	44	80	0	70	76	A	66	66	34	58	50	A	60	52	A	52	52	A
6	813822103007	257007	MANOJ PRASHANAA. V	MQ	NIL	7.5103	64	76	72	78	80	64	64	78	34	62	50	64	18	36	50	44	60	64
7	813822103008	257008	MARIS. R	GQ	1	*	A	90	66	64	62	56	70	68	54	78	62	64	82	82	50	66	80	80
8	813822103009	257009	NHIVAETHIHA. S	MQ	NIL	8.5155	100	90	100	88	80	78	92	86	78	92	98	90	76	88	A	90	88	90
9	813822103010	257010	NITHESHWARAN. S G	GQ	NIL	7.0309	54	60	A	64	66	60	A	50	28	A	50	50	36	32	14	40	52	A
10	813822103011	257011	PAVITHRA. K	GQ	NIL	7.7732	54	58	74	A	52	54	72	50	32	90	94	82	72	88	66	72	58	A
11	813822103012	257012	PAVITHRAN. K	GQ	NIL	8.1443	70	90	72	68	74	80	70	82	68	88	74	74	70	72	50	50	68	78
12	813822103014	257014	PRAVEEN KUMAR. P	GQ	6	*	40	64	50	28	68	58	54	50	40	70	50	44	50	38	10	36	50	40
13	813822103015	257015	SANTHOSINI. V	GQ	NIL	8.1031	68	74	96	68	68	84	66	64	78	74	76	86	76	72	56	60	70	86
14	813822103016	257016	SHAMCHARAN. R	GQ	NIL	7.7216	20	72	38	74	68	68	52	50	64	38	60	50	8	30	24	56	60	74
15	813822103017	257017	SRI MAADHAVAN. B V	MQ	9	*	A	20	32	A	40	50	A	12	34	A	30	50	10	14	0	A	26	50

16	813822103018	257018	SUBHASH MADHAVAN. S	GQ	NIL	7.799	56	68	44	44	86	68	80	68	74	68	62	72	64	50	14	54	56	84
17	813822103019	257019	THILAGARAJ. A	GQ	2	*	42	54	52	32	60	60	44	38	A	50	20	70	56	34	10	24	28	72
18	813822103020	257020	VISHVANTH. S	MQ	2	*	36	84	12	56	42	60	58	50	34	34	14	50	36	20	20	28	38	50
19	813822103301	257021	MAKESH. S	GQ	NIL	8.551	76	78	96	90	80	90	94	98	86	98	70	80	76	74	32	92	92	80
20	813822103302	257022	MOHAMED IKRAM. S	GQ	3	*	30	44	A	42	72	54	A	50	30	26	52	54	38	22	0	10	30	50
No.of Failures(<50)							6	2	6	5	3	1	2	3	8	2	4	1	8	8	10	6	4	1

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '5' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'CIVIL' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:CIVIL Semester:5 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CE3003-sathyaprabha-ce			CE3005-vaishali-ce			CE3025-anandraj-ce			CE3501-venkatesan-ce			CE3502-sathyaprabha-ce			CE3503-kannan-ce			MX3084-kesavaraja-ce		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813821103001	247001	AMARNATH PRAVEEN. M	GQ	NIL	7.6165	94	94	90	66	66	72	76	80	68	58	82	62	72	86	88	64	72	72			
2	813821103002	247002	AMEERUDEEN. K	GQ	2	*	86	92	78	64	62	52	32	62	60	16	30	60	50	64	54	40	36	56			
3	813821103003	247003	ARUN KUMAR. P	MQ	NIL	7.8615	58	72	60	64	54	52	20	68	62	54	62	62	56	68	68	34	34	32			
4	813821103004	247004	DHEENADHAYALAN. V	GQ	3	*	86	82	50	34	66	A	54	58	60	14	42	50	30	42	50	18	64	52			
5	813821103005	247005	GIRIDHARAN. A	GQ	1	*	56	60	56	26	60	46	40	60	24	52	34	50	36	44	48	36	30	50			
6	813821103006	247006	GOKULA KRISHNAN. K S	MQ	2	*	92	70	38	58	52	A	52	72	50	32	22	18	30	26	40	40	30	18			
7	813821103007	247007	GOKULESH. S	GQ	2	*	74	82	68	72	64	72	60	82	54	50	38	44	38	68	48	50	32	58			
8	813821103008	247008	HARINI. E L	MQ	NIL	7.9248	94	94	86	80	72	86	66	58	68	72	60	44	50	80	76	70	50	52			
9	813821103009	247009	JAFFREY SAMUEL. F	GQ	1	*	70	64	44	20	50	54	34	30	52	38	50	28	30	68	58	50	50	24			
10	813821103010	247010	LIJO SOOSAI. S	GQ	NIL	8.4361	92	76	80	82	88	74	76	88	76	76	94	76	80	90	80	76	88	82			
11	813821103011	247011	LYDIA MARY VINCENT AROCKIARAJ	GQ	NIL	8.3158	94	94	84	76	90	92	88	92	76	82	82	72	90	92	84	86	90	88			
12	813821103012	247012	MANIMOZHI. T	GQ	NIL	7.6805	90	78	66	74	58	72	78	72	60	54	76	56	64	58	68	74	74	70			
13	813821103013	247013	MOHAMED ASHFAK. U	MQ	1	*	64	80	80	50	62	24	52	56	20	50	66	56	30	58	58	38	58	38			
14	813821103014	247014	MOHAMMED FARIZ. M	MQ	1	*	66	64	56	40	50	50	60	60	54	60	66	40	36	52	22	56	50	50			
15	813821103015	247015	MUGESH. M	MQ	1	*	80	78	62	50	50	50	30	62	32	26	24	50	52	72	40	70	30	24			
16	813821103016	247016	NAVEEN KUMAR. P	GQ	4	*	58	70	58	20	56	28	36	54	14	36	38	20	30	56	32	40	38	30			
17	813821103017	247017	SANJAY. R	MQ	1	*	58	A	62	50	70	70	42	52	70	36	38	26	30	64	46	40	20	32			
18	813821103018	247018	SANTHOSH. M	MQ	11	*	58	50	60	26	A	42	42	A	62	40	40	34	16	46	50	40	22	24			
19	813821103019	247019	SATHISH KUMAR. D	MQ	NIL	7.8011	70	A	A	52	A	A	68	A	A	50	A	A	50	A	A	76	A	A			

20	813821103020	247020	SATHYA. M E	MQ	NIL	7.8045	84	86	82	56	78	72	52	74	82	56	84	56	60	68	62	54	74	60			
21	813821103021	247021	SRINITHI. E	MQ	NIL	8.5263	94	94	86	84	92	74	82	90	58	84	86	70	90	80	90	82	74	64			
22	813821103022	247022	SRINIVASAN. S	MQ	1	*	64	62	38	32	52	22	70	42	38	46	60	38	32	60	50	60	72	50			
23	813821103023	247023	THANGAPRABAKARAN. T	MQ	7	*	30	68	52	22	50	32	16	52	38	34	28	28	30	42	44	40	50	30			
24	813821103024	247024	VENGATESH. V	GQ	1	*	76	68	56	58	72	50	62	86	64	54	74	62	62	68	68	74	66	34			
25	813821103025	247025	VIJAYAPRABHA. K	GQ	NIL	8.7444	94	94	90	96																	

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '7' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'CIVIL' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:CIVIL Semester:7 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CE8701-belin-ce			CE8702-kesavaraja-ce			CE8703-sathyaprabha-ce			OME754-venkatesan-ce		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813820103001	237001	AISHWARYA. R	GQ	NIL	8.5989	72	88	90	70	88	92	80	100	A	84	68	52
2	813820103003	237002	ANTONY ALDRIN	MQ	NIL	7.6044	A	A	64	A	A	82	A	68	A	80	68	A
3	813820103005	237005	ARANGARAJAN. R	GQ	NIL	8.1978	58	66	50	16	34	78	62	80	8	66	56	12
4	813820103006	237006	DHANUSH. K	GQ	NIL	7.5	A			0			A			A		
5	813820103007	237007	ELAKKIYA. E	GQ	NIL	8.4286	70	78	68	54	50	74	70	70	60	86	68	40
6	813820103008	237008	GOKUL. R	MQ	NIL	8.033	56	62	44	34	50	80	66	14	16	68	50	36
7	813820103009	237009	GOWTHAM. R	MQ	NIL	8.033	A	86	44	66	90	86	8	64	12	86	70	40
8	813820103010	237010	KAMALESHWARAN. M	GQ	NIL	7.905	52	54	52	26	32	A	60	60	8	58	38	16
9	813820103011	237011	KANIHA. R	GQ	NIL	8.3626	74	78	84	52	50	94	96	100	A	94	68	54
10	813820103012	237012	KISHOR. A R	MQ	NIL	8.052	70	62	60	40	54	A	70	20	20	92	62	52
11	813820103013	237013	MAGESH. S	MQ	NIL	8.2527	76	70	50	70	78	84	96	96	70	82	66	68
12	813820103014	237014	NANTHESWARAN. A	GQ	NIL	7.7765	12	50	52	20	32	76	4	64	4	60	58	18
13	813820103015	237015	PREETHI. J	GQ	NIL	8.1264	50	86	20	20	40	18	70	50	A	92	56	60
14	813820103016	237016	RAGHUL. A	GQ	NIL	8.4835	72	78	82	34	52	76	70	100	50	70	76	84
15	813820103017	237017	RAJA. A	MQ	NIL	8.0385	68	68	62	68	68	78	70	70	A	78	66	6
16	813820103018	237018	SANCHAYAN. S	MQ	NIL	8.2308	92	90	90	92	96	100	100	100	A	86	84	82
17	813820103020	237020	SARUPRABHA. E	GQ	NIL	8.4066	72	82	88	54	60	98	80	100	100	96	84	84
18	813820103022	237022	SRIVARSAN. S	GQ	NIL	7.8239	68	60	26	26	50	54	20	60	8	68	54	36
19	813820103023	237023	SUMESH. S	GQ	NIL	7.8268	A	72	A	58	24	36	4	20	A	62	52	24

20	813820103024	237024	SUPER SUKUMARAN. N	GQ	NIL	8.0934	74	54	A	60	34	68	64	74	4	80	52	56
21	813820103025	237025	THAVANESHAN. V S	GQ	NIL	8.0604	80	64	60	50	42	74	74	68	8	72	64	60
22	813820103301	237026	NARENDRAN. M	MQ	NIL	7.4167	58	50	64	50	56	74	60	84	50	72	52	52
23	813820103302	237027	YUVARAJAN. R	GQ	NIL	7.5303	32	50	58	18	12	64	66	50	0	44	8	16
24	813820103701	237028	PAVITHRA. J	MQ	NIL	8.5119	70	88	82	70	58	92	70	100	100	92	74	74
25	813821103501	237003	ANTONY. C J	MQ	NIL	7.6161	A			0			A			A		
No.of Failures(<50)							2	0	4	11	8	2	4	3	10	1	2	10

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21 March 2024

Circular

First Internal Assessment Test for First Year (2nd Sem.) & Second Year (4thSem.)B.E./B.Tech., Classes will commence from 1st April 2024(MONDAY) as per the time table attached.

Test Duration

~~9.15 am to 10.45 am (1 ½ Hours)~~

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rdHour

11.50 a.m. – 12.45p.m. – 4thHour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

First IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
1st April 2024	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology
2nd April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
3rd April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
4thApril 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
5th April 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
6th April 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
8th April 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

First IA Test for Second Year (4th Sem.) _ April 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
1st April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	CE3401 - Applied Hydraulics Engineering	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
2nd April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3451 - Introduction to Operating System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3404 - Soil Mechanics	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
3rd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3492 - Data Base Management System	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4thApril 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3452 - Theory of Computation	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3402 - Strength of Materials	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	CS3491 - Artificial Intelligence and Mechine Learning	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3403 - Concrete Technology	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
8th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	IT3401 - Web Essentials	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	GE3451 - Environmental Sciences and Sustainability	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

21 March 2024

Circular

Second Internal Assessment Testfor Third Year (6th Sem.)& Final Year (8th Sem.) for B.E./B.Tech., Classes will commence from 25thMarch 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Third Year (6th Sem.) _ April 2024

Year: Third **Sem. 6th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
25th March 2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing	EE3601 - Protection and Switchgear	CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer	CE3602 - Structural Analysis II	CCW331 - Business Analytics	CCS365 - Software Defined Networks
26th March 2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3602 - Power System Operation and Control	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
27th March 2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	OCS352 - IOT Concepts and Applications	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construccion Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
28th March 2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	EE3011 - Multilevel Power Converters	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
1st April 2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3020 - Smart System Automation	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
2nd April 2024	CCS341 - Data Warehousing				CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Final Year (8th Sem.) _ April 2024

Year: Final Year **Sem. 8th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil
25th March 2024							
26th March 2024							
27th March 2024							GE8076 - Professional Ethics In Engineering
28th March 2024							CE8020 - Maintanance, Repair and Rehabilation of Structures
1st April 2024							
2nd April 2024							

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th April 2024

Circular

Second Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 29th April 2024 (MONDAY) as per the time table attached.

-Test Duration-

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members.

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

II [redacted] IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
29th April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
30th April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
2nd May 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
3rd May 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
4th May 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
6 th May 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

II IA Test for Second Year (4th Sem.) _ April 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
29th April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
30th April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3492 - Data Base Management System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
2nd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4th April 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3491 - Artificial Intelligence and Mechine Learning	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	IT3401 - Web Essentials	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
7th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3451 - Introduction to Operating System	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.17th April 2024

Circular

Third Internal Assessment Test for Third Year (6th Sem.) for B.E. / B.Tech., Classes will commence from 22nd April 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
T H I R D - I A Test for Third Year (6th Sem.) _ April _ May 2024

Year: Third Sem. 6th

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
22.4.2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing		CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer		CCW331 - Business Analytics	CCS365 - Software Defined Networks
23.4.2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3601 - Protection and Switchgear	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
24.4.2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	EE3602 - Power System Operation and Control	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
25.4.2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	OCS352 - IOT Concepts and Applications	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
29.4.2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3011 - Multilevel Power Converters	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
30.4.2024	CCS341 - Data Warehousing		EE3020 - Smart System Automation		CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	
2.5.2024							CE3602 - Structural Analysis II		

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.29th May 2024

Circular

Third Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 3rd June 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

After IA Test coaching class will be conducted for next day IA test subject.

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

Third IA Test for Second Year (4th Sem.) _ June 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
3rd June 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
4th June 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	IT3401 - Web Essentials	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	CS3452 - Theory of Computation
5th June 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AL3451 - Machine Learning	CS3492 - Database Management System	AL3452 - Operating Systems
6th June 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3492 - Data Base Management System	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	AD3391 - Database Design and Management
10th June 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	CS3451 - Introduction to Operating System	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
11th June 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3491 - Artificial Intelligence and Mechine Learning	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

Third IA Test for First Year (2nd Sem.) _ June 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
3rd June 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
4th June 2024	Batch - 1 ---------(MA3251) Batch - 2 ----------PH3256 / PH3254 / PH3201 / PH3255						
5th June 2024	Batch - 1 ---------- PH3256 / PH3202 / PH3251 Batch - 2 ----------(MA3251)						
6th June 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation
7th June 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
10th June 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Batch - 1 - AIDS (A Sec) , CSE (A & B Sec), AIML, EEE, Mech.,
Batch - 2 - AIDS (B Sec) , IT, CSBS, ECE (A & B Sec), Civil, ICE

Principal

(Finalone)

SaranathanCollege of Engineering
Tiruchirappalli

Internal Assessment–I			Date/ Session	08/Apr/2024 F.N	Marks	50
Course code	AL3451	**Course Title**	Machine Learning (C214)			
Batch No.	22-26	**Duration**	90 mins	**Academic Year**	2023-2024-E	
Year	II	**Semester/ Section**	IV	**Department**	CSBS	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define machine learning	C214.1	R
2	What is the difference between supervised & unsupervised learning?	C214.1	U
3	List few applications of machine learning	C214.1	R
4	Define inductive bias	C214.1	R
5	How Linear equation used in machine learning?	C214.2	R
6	Let us assume a regression algorithm generates a model Y=0.45 + 0.76 * X for the data pertaining to week to week sales of a product. X is the week and Y is the product sales. Find the prediction for 7^{th} and 9^{th} week.	C214.2	A
7	State the difference between simple and multiple linear regression	C214.3	U
8	Mention how Bayesian rule useful in machine learning?	C214.3	U
9	What is a gradient? How gradient descent useful in machine learning?	C214.3	U
10	Compare and contrast linear regression and logistic regression	C214.3	AZ

Part – B(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

11	Explain in detail about PAC learning with example	C214.1	R
	Or		
12	(a) Discuss in detail about Bias- Variance tradeoff (6) (b) Write a note on VC dimension (4)	C214.1	R
13	Explain about Bayesian Linear regression model with suitable example	C214.2	A
	Or		
14	Explain about discriminant function in linear classification model	C214.3	U

Part – C(Answer all the questions 1 x 10 = 10marks)

15	Time	Weather	Temperature	Company	Humidity	Wind	Goes	C214.3	C
	Morning	Sunny	Warm	Yes	Mild	Strong	Yes		
	Evening	Rainy	Cold	No	Mild	Normal	No		
	Morning	Sunny	Moderate	Yes	Normal	Normal	Yes		
	Evening	Sunny	Cold	Yes	High	Strong	Yes		
	Implement the Find-S algorithm using the above data to fin general hypothesis and specific hypothesis.								
	Or								
16	The week and number of hours spent by a researcher in a library are tabulated as below. Predict hours spent in the 7th and 9th week using linear regression.							C214.3	C

Week (xi)	1	2	3	4	5
Hours spent(yi)	12	18	22	28	35

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Name of the faculty R.Kannan/C.S.B.S

SaranathanCollege of Engineering

Tiruchirappalli

Internal Assessment–I			Date/ Session	03/April/2024 F.N	Marks	50
Course code	AL3452	Course Title	Operating Systems (C212)			
Batch No.	22-26	Duration	90 mins	Academic Year	2023-2024-E	
Year	II	Semester/ Section	IV	Department	CSBS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Operating Systems? Name few latest OS.	C212.1	R
2	Mention the objectives and functions of Operating Systems.	C212.1	U
3	What is SYSGEN and SYSBOOT?	C212.1	U
4	Depict the importance of System Program.	C212.1	A
5	Inscribe the Correlation between Policy and Mechanism.	C212.1	AZ
6	Compare Program and Process.	C212.2	AZ
6	Illustrate the five different process states with proper definition.	C212.2	A
8	Why Context switch is needed?	C212.2	A
9	How fork() system call differ from exec() system call?	C212.2	AZ
10	Define the terms: Turnaround Time, Waiting Time, Completion Time.	C212.2	R

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

11	Explain in detail the different architectures of OS starting from simple structure, layered structure, micro kernels, modules and hybrid system with suitable example OS structures, including Google's Android.	C212.1	A
	Or		
12a	Elucidate various types of System calls with an example for each.(5)	C212.1	E
12b	Highlight the importance of Operating System Interfaces. (5)	C212.1	U
13	Give detailed notes on Process Scheduling and Operations on processes.	C212.2	R
	Or		
14a	Write in detail about Threads and different Multithreading models. (5)	C212.2	R
14b	Explain various Operations on Process (5)	C212.2	

Part – C(Answer all the questions 1 x 10 = 10marks)

15	Give detailed examination on Inter-Process Communication and its techniques in detail.	C212.2	AZ
	Or		
16	Consider the following set of processes with length of CPU burst time given in milliseconds. Process / Burst time / Priority / Arrival time P1 / 10 / 3 / 0 P2 / 1 / 1 / 1 P3 / 2 / 3 / 2 P4 / 1 / 4 / 1 P5 / 5 / 2 / 2 (i) Draw the Gantt chart for the execution of these processes using FCFS, SJF, SRTF, pre-emptive and not pre-emptive priority, Round robin with time slice of 2ms. (ii) Find the average waiting and Turnaround time for each of the methods. (iii) Analyze which algorithm have lowest waiting time.	C212.2	E

*Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).*Name of the faculty: A. Mohanadevi /CSBS

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment–II			Date/ Session	02/May/2024 F.N	Marks	50
Course code	AL3452	Course Title	Operating Systems (C212)			
Batch No.	22-26	Duration	90 mins	Academic Year	2023-2024-E	
Year	II	Semester/ Section	IV	Department	CSBS	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Implicit threading?	C212.2	R
2	Define race condition.	C212.2	U
3	Write about priority Inversion.	C212.2	U
4	State the need for Process Synchronization.	C212.2	A
5	Define busy waiting and spin lock.	C212.2	U
6	Differentiate logical address space and physical address space.	C212.2	AZ
7	What is need the for Swapping?	C212.3	A
8	Compare internal Fragmentation and External Fragmentation.	C212.3	AZ
9	Define Lazy Swapper.	C212.3	U
10	What do you meant by Compaction?	C212.3	R

Part – B (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

11	Explain the following in detail: i. Thread Libraries ii. Thread Issues	C212.2	R
	Or		
12a	Explain Critical Section Problem.	C212.2	R
12b	With merits and demerits explain the following Process Synchronization Tools: i. Synchronization Hardware ii. Semaphore iii. Mutex	C212.2	A
13	With suitable illustrations explain in detail about Segmentation.	C212.3	A
	Or		
14	What is Paging? Explain the basic concepts of Paging.	C212.3	R

Part – C (Answer all the questions 1 x 10 = 10marks)

15	Give detailed analysis on how Monitors are useful than other Synchronization Tools. How the Dining Philosopher problem can be solved using monitors?	C212.2	AZ
	Or		
16	Write in detail about Classical Problem of Synchronization.	C212.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Name of the faculty: A. Mohanadevi /CSBS

SaranathanCollege of Engineering

Tiruchirappalli

Internal Assessment–I		Date/ Session	02/Mar/2024 F.N	Marks	
Course code	CCS346	**Course Title**	Exploratory Data Analysis (C312E3V11)		
Batch No.	21-25	**Duration**	90 mins	**Academic Year**	2023-2024-E
Year	III	**Semester/ Section**	VI	**Department**	CSBS

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define EDA.	C312E3V11.1	U
2	Highlight the importance of EDA in Data Science.	C312E3V11.1	A
3	Differentiate on various level of measurement scales on data.	C312E3V11.1	AZ
4	List the Software tools for EDA.	C312E3V11.1	R
5	How does an Area plot differ from a stacked plot?	C312E3V11.1	AZ
6	What is Pivoting?	C312E3V11.1	R
7	Write example to illustrate to concatenate two Data Frames horizontally.	C312E3V11.1	C
8	Compare Pandas Series and Data Frames.	C312E3V11.2	A
9	Consider the following code snippet and write the output of *loc* and *iloc* methods: *data= pd.Series(['a','b','c'], index=[1,3,5])* *print(data.loc[1:3])* *print(data.iloc[1:3])*	C312E3V11.2	E
10	What are the various ways to construct Data Frame objects?	C312E3V11.2	R

Part – B(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

11a	Write short notes on Significance of EDA	C312E3V11.1	R
11b	Give comparative analysis on EDA with Classical and Bayesian Analysis.	C312E3V11.1	AZ
	Or		
12	Describe in detail about Visual tools of EDA.	C312E3V11.1	U
13	Explain various Pandas Objects in detail with required examples.	C312E3V11.2	R
	Or		
14	Write detailed note on Data Indexing and Selection with suitable Illustrations.	C312E3V11.2	A

Part – C(Answer all the questions 1 x 10 = 10marks)

15	Explain in detail about various methods and functions for Merging database-style data frames.	C312E3V11.1	U
	Or		
16	What is the need for Data Transformation? Explain any two Data Transformation techniques with examples.	C312E3V11.1	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Name of the faculty: A. Mohanadevi /CSBS

SaranathanCollege of Engineering

Tiruchirappalli

Internal Assessment–III			Date/ Session	22/April/2024 F.N	Marks	50
Course code	CCW331	**Course Title**	Business Analytics (C308)			
Batch No.	21-25	**Duration**	90 mins	**Academic Year**	2023-2024-E	
Year	III	**Semester/ Section**	VI	**Department**	CSBS	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Define HRIS.	C308.5	U
2.	Write the data analytic applications in logistics.	C308.5	R
3.	Define Inventory turn calculation.	C308.5	C
4.	List the three models used for maintaining inventory stocks.	C308.5	Az
5.	Describe SCM.	C308.5	Az
6.	What is Marketing Strategy and role of marketing mix?	C308.6	R
7.	Explain SWOT Analysis.	C308.6	U
8.	What are the steps involved in customer value analysis?	C308.6	A
9.	Explain CPV and Total customer benefit.	C308.6	E
10.	Write the benefits of sales analytics.	C308.6	C

Part – B(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

11	Explain in detail about Supply Chain Management.	C308.5	A
	Or		
12	Apply HR Analytics to make prediction of demand for hourly employees for a year.	C308.5	Az
13	Explain in detail about analytics in Logistics Management.	C308.5	U
	Or		
14	Discuss in detail about analytic applications in HR and supply chain.	C308.5	Az

Part – C(Answer all the questions 1 x 10 = 10marks)

15	Explain about marketing strategy levels and sales planning.	C308.6	Az
	Or		
16	Apply predictive analytics for customer behavior in marketing and sales.	C308.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Name of the faculty Ms.K.Gomathi Asst Prof/C.S.E

SARANATHAN COLLEGE OF ENGINEERING

Internal Assessment Test - I			Date/Session	05/Apr/24	Marks	50
Course code	CW3401	Course Title	INTRODUCTION TO BUSINESS SYSTEMS			
Batch No.		Duration	90 minutes	Academic Year	2023 - 2024	
Year	II	Semester/Section	IV	Department	CSBS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Business Environment?	1	U
2	Difference between internal and external environment.	1	Az
3	What is Vision and Mission statements?	1	U
4	What are the components of a Macro Environment?	1	U
5	What are the components of an Organizational systems?	1	U
6	Define Management	1	U
7	What are the different functions of Management?	1	U
8	What are the advantages of Systems approach?	1	U
9	What is the meaning of Tangible and Intangible assets?	1	U
10	What do you mean by Sole Proprietorship company?	2	U

Part – B - (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	What is a Business Environment and its components? Discuss in detail.	1	R
	Or		
12	What are the importance and features of Business Environment?	1	R
13	What is the systems approach to Management?	1	R
	Or		
14	Describe in detail the different functions of Management.	2	R

Part – C - (Answer all the questions 1 x 10 = 10marks)

15		CO	Skills
	The case is about US-based technology giant Google's Chinese sojourn. Google entered China in 2000 and started operating in the country by offering 24 million web pages in the Chinese language and gained immediate popularity. By 2003, Google was ranked #1 in China's search engine market. But after that Google losing market share as its servers were placed outside the country and the search was slow. In 2006, Google decided to place its servers in China and censor the content according to the standards set by the Chinese government. Even after Google censored its search, the website was blocked intermittently, as the government was not satisfied with Google's censoring. In January 2010, Google announced that it would no longer censor its search in China and it was contemplating an exit from China. Thus, Google closed the door on one of the largest internet markets in the world. But the market for the internet and mobiles in China continued to grow drastically. Now, Outline the issues and challenges faced by Internet companies in Chinese Market?	6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	M. CHRISHA MAGDALIN			Year / Semester / Section	3rd / V / 'A'
Batch No.	249016	Date / Session	9-11-23/FN	Department	CSBS
Course Code	CCS367	Course Title	STORAGE TECHNOLOGIES		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	S. K 9/11	S. KIRUTHIGA			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	1	12	✓	10			10
3	✓	1	13					
4	✓	1	14	✓	09			9
5	✓	1	15					
6	✓	2	16	✓	06			6
7	✓	2					Total	25
8	✓	1	38 / 50					
9	✓	1						
10	✓	1						
Total		13	Grand Total					Name and Signature of the Examiner with date

R. MOHAN KUMAR 10/11/23

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted					28	22	50
Marks Obtained					24	14	38

QAC Audit - Remarks

— NIL —

J. Boobala Murali 22/11/2023

J. BOOBALA MURALITHARAN

Name and Signature of the QAC member

1. Data backup

- The ~~bat~~ data backup is a process of copying data and store in the off site server.
- This data can be recovered in case of accidental data loss.

Data archive

- Moving data to the ~~sp~~ seperate storage for retention and compilence purpose.
- The data should be frequently accessed one.

2. Data recovery
Data consistency
Data transfer
Data efficiency

4. Data ~~deputi~~ du de duplication :

- The process of eliminating unwanted data, or duplicate data.
- This lead to reduce storage space, easy efficiency of data.

N.Athi

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	N.Athish varshen			Year / Semester / Section	III / V / A
Batch No.	249011	Date / Session	09-11-23	Department	CSBS
Course Code	CCS367	Course Title	Storage Technologies		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	S.K 9/11		S.KIRUTHIGA.		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1		2	11					
2		2	12		08			8
3		2	13					
4		1	14		09			9
5		1	15		02			2
6		2	16					
7		2					Total	19
8		2	37					
9		2						
10		2						
Total		18			37/50 Grand Total N.Athi			

10/11/23
R. MOHAN KUMAR
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted					28	22	50
Marks Obtained					24	13	37

QAC Audit - Remarks

– NIL –

D. Barbala Muni 22/11/2023
D. BARBALA MURALITHARAN
Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	L. SUDARVIZHI			Year / Semester / Section	III / V / A
Batch No.	249058	Date / Session	09/11/2023 / FN	Department	CSBS
Course Code	CCS 367	Course Title	STORAGE TECHNOLOGIES		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 19
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part - A must be written in pages 2-6. Answers for Part - B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	1	12	✓	9			9
3	✓	2	13					
4	✓	2	14	✓	10			10
5	✓	2	15	✓	6			6
6	✓	2	16					
7	✓	2					Total	25
8	✓	2						
9	✓	2						
10	✓	2						
Total		19						

44 / 50 L. Sudarvizhi

Grand Total

12/11/23 R. MOHAN KUMAR

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted					28	22	50
Marks Obtained					26	18	44

QAC Audit - Remarks

— NIL —

D. Bhuvaneswari 22/11/2023

D. BOOPALA MURALITHARAN

Name and Signature of the QAC member

S. Stephy

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. STEPHY BLESS			Year / Semester / Section	II / IV / A
Batch No.	259047	Date / Session	2.5.24 / FN	Department	CSBS
Course Code	AL3452	Course Title	OPERATING SYSTEMS		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	Prethy	4/5/24			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1		2	11					
2		—	12		4		4	8
3		2	13					
4		2	14		8			8
5		0	15					
6		—	16		8			8
7		2					Total	24
8		1						
9		1						
10		—						
Total		10	34/50		68%			

Grand Total

A. MOHANDOSS 4/5/24

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		30	20				50
Marks Obtained		22	12				34

QAC Audit - Remarks

NIL

Name and Signature of the QAC member

A. SRIDEVI 22/05

PART - B

12) a) CRITICAL SECTION PROBLEM

* Consider a system of n process (P_0, P_1, P_{n-1})
* each program should have a critical section code.
* when one process in critical section the other process should not enter into the critical section.
* Critical section problem is a design protocol to solve this problem
* If a process should enter into critical section it should ask permission in enter section followed by exit section and remainder section

Algorithm of critical section problem.

```
do {
    enter section
        critical section
    exit section
        remainder section
while ( true)
    }
```

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	B. Harsavardan			Year / Semester / Section	III/IV/A
Batch No.	259016	Date / Session	02/05/24-FN	Department	CSBS
Course Code	AL3452	Course Title	Operating Systems		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	K. Palaniswamy 2/5				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1		7	11		4		3	7
2			12					
3			13					
4		1	14		8			8
5		2	15		7			7
6		1	16					
7		1					Total	22
8		1						
9								
10		/						
Total		6						

28/50 56·1

Grand Total

A. MOHANADEVI 22/5/24

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		30	20				50
Marks Obtained		17	11				28

QAC Audit - Remarks

22/05/24

A. SRIDEVI

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

M. Merlin

ANSWER BOOK

Name	M. Merlin			Year / Semester / Section	II / IV / A
Batch No.	259032	Date / Session	02/05/24 - F.N	Department	CSBS
Course Code	AL3452	Course Title	Operating Systems		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	B Balaprasad				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1		1	11					
2		2	12		4		4	8
3		2	13					
4		2	14		2			2
5		2	15					
6		1	16		8			8
7		1					Total	18
8		1						
9		—						
10		—						
Total		12	30/50		Grand Total		60·1·	

A. MOHAMMADALI — 4/5/24

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		30	20				50
Marks Obtained		25	5				30

QAC Audit - Remarks

22/05

A. SRIDEVI

Name and Signature of the QAC member

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:4 Section:A: Assessment Test -1 Sem Period:23-24EVEN

S.no	Regno	Batchno	Name	AL3451	AL3452	CS3492	CW3401	GE3451	MA3391	Total	AVG	Att%
1	813822244001	259001	AADHITYAA. S A	38	26	40	62	41	68	275	45.83	100.00[568.0,(
2	813822244002	259002	ABISHEK. S	14	24	30	50	44	56	218	36.33	99.12[568.0,5
3	813822244003	259003	AKSHAYAGIRI. K	16	18	28	50	24	60	196	32.67	90.67[568.0,5
4	813822244004	259004	ARUNA. B	52	50	66	62	34	62	326	54.33	94.54[568.0,3
5	813822244005	259005	ASWATHI. M	42	50	28	66	56	60	302	50.33	91.55[568.0,4
6	813822244007	259006	BAGYALAKSHMI. G	72	50	42	50	46	92	352	58.67	100.00[568.0,(
7	813822244008	259007	BHAVADHARINI. D	78	76	80	70	78	96	478	79.67	94.37[568.0,3
8	813822244009	259008	DAVIDSON JOSHUA. R	68	50	36	54	66	60	334	55.67	95.95[568.0,2
9	813822244010	259009	DEEPTI. S	78	58	64	64	80	96	440	73.33	97.36[568.0,1
10	813822244011	259010	DEVANANTHAM. A	42	14	36	44	37	50	223	37.17	90.32[568.0,5
11	813822244012	259011	DHAANUSH. C	70	30	58	58	58	78	352	58.67	97.89[568.0,1
12	813822244013	259012	DHIVYA. J	94	80	80	82	71	100	507	84.50	97.18[568.0,1
13	813822244014	259013	DINESH. T A	50	58	62	58	59	84	371	61.83	91.73[568.0,4
14	813822244015	259014	GURU PRASATH. M	40	50	60	62	45	74	331	55.17	98.59[568.0,8
15	813822244016	259015	HARINI. B	68	50	60	60	32	78	348	58.00	97.54[568.0,1
16	813822244017	259016	HARSAVARDAN. B	50	60	50	36	59	82	337	56.17	86.97[568.0,7
17	813822244018	259017	HEM NITHISH. M	68	70	82	56	57	68	401	66.83	96.83[568.0,1
18	813822244019	259018	INDUJA. R	54	50	42	62	38	46	292	48.67	94.37[568.0,3
19	813822244021	259020	JANUPRIYA. S S	62	52	62	72	70	94	412	68.67	92.61[568.0,4
20	813822244023	259021	KARAN RAJ. P	A	14	A	A	47	54	115	19.17	75.88[568.0,1
21	813822244024	259022	KARTHIK. P	52	50	62	58	46	96	364	60.67	95.25[568.0,2
22	813822244025	259023	KAVIYARASAN. S	72	66	60	42	38	72	350	58.33	95.60[568.0,2
23	813822244026	259024	KAVYA SRI. T	86	56	76	68	68	98	452	75.33	95.77[568.0,2
24	813822244027	259025	KETHZIA. E	64	54	78	62	60	94	412	68.67	96.30[568.0,2
25	813822244028	259026	KRISHNA KUMAR. S	18	24	32	54	20	18	166	27.67	89.26[568.0,6
26	813822244029	259027	MADHESH. V	40	24	68	50	41	68	291	48.50	85.21[568.0,8
27	813822244030	259028	MADHUSUDHANAN. S	68	68	66	64	35	94	395	65.83	90.14[568.0,5
28	813822244031	259029	MAHALAKSHMI. M	40	34	50	50	57	78	309	51.50	95.60[568.0,2
29	813822244032	259030	MAHALAKSHMI. S	50	50	62	58	41	68	329	54.83	92.08[568.0,4
30	813822244033	259031	MAHATI. S	58	76	84	70	71	98	457	76.17	91.37[568.0,4
31	813822244034	259032	MERLIN. M	64	52	84	78	60	96	434	72.33	95.95[568.0,2
32	813822244035	259033	MOHAMED ISHAQ. M	A	10	28	46	A	38	122	20.33	85.39[568.0,8
33	813822244036	259034	MYTHREYAN. M	8	16	56	24	43	64	211	35.17	97.36[568.0,1
34	813822244038	259036	NAVEEN KANNAN. A C	76	50	54	64	68	68	380	63.33	93.66[568.0,3
35	813822244039	259037	NAVINESH. K	68	50	60	64	57	82	381	63.50	92.78[568.0,4
36	813822244040	259038	PRAGATHEESH. A	56	30	64	54	41	86	331	55.17	93.31[568.0,3
37	813822244041	259039	PRASANNA. M E	6	26	28	36	12	34	142	23.67	80.63[568.0,1
38	813822244042	259040	RAGHUPATHY. M	70	64	66	70	55	66	391	65.17	94.01[568.0,3
39	813822244043	259041	RAKESH. R	A	40	54	36	46	78	254	42.33	73.59[568.0,1

40	813822244044	259042	ROHIT SURYA. L K	A	52	52	A	52	54	210	35.00	70.60[568.0,1
41	813822244045	259043	SANJAI. R	A	A	A	A	44	A	44	7.33	64.08[568.0,2
42	813822244046	259044	SANJAY. I	A	30	52	A	A	22	104	17.33	78.17[568.0,1
43	813822244047	259045	SHYAMSUNDAR. V	24	38	50	46	47	52	257	42.83	95.95[568.0,2
44	813822244048	259046	SIVAMANIKANDAN. R	14	26	36	32	6	50	164	27.33	84.68[568.0,8
45	813822244049	259047	STEPHY BLESS. S	84	70	78	68	65	96	461	76.83	97.18[568.0,1
46	813822244050	259048	SUWETHA. A	66	58	72	78	70	86	430	71.67	98.42[568.0,9
47	813822244051	259049	TANIA MICHELLE. A	56	42	62	72	70	72	374	62.33	90.14[568.0,5
48	813822244052	259050	TEDDY SAMSON. F	58	78	70	74	66	70	416	69.33	91.73[568.0,4
49	813822244053	259051	THARUN. S	56	56	50	62	56	76	356	59.33	88.38[568.0,6
50	813822244054	259052	UDAY. R	90	68	72	60	63	92	445	74.17	95.25[568.0,2
51	813822244055	259053	VASANTH. V	70	52	70	58	45	74	369	61.50	96.83[568.0,1
52	813822244056	259054	VENKATESAN. L	66	24	66	68	68	74	366	61.00	95.95[568.0,2
53	813822244057	259055	VIKRAM. M	36	28	50	34	46	58	252	42.00	89.79[568.0,5
54	813822244058	259056	YAGALE. E	60	50	74	60	53	86	383	63.83	96.30[568.0,2
55	813822244006	259057	AVINASH. M	10	12	42	46	27	36	173	28.83	93.13[568.0,3
56	813822244022	259058	JENCY FEDILIA. C	40	50	64	62	59	58	333	55.50	86.44[568.0,7

Performance Analysis

Total Appeared	56	56	56	56	56	56
Total Passed	34	34	41	41	28	49
Total Failed(Fail + Absent)	22	22	15	15	28	7
Above 80	4	1	5	1	1	19
Between 50-59	11	23	11	14	12	8
Pass%	**61**	**61**	**73**	**73**	**50**	**88**

Subcode	Title	Faculty Name
AL3451	MACHINE LEARNING	Mr.R.Kannan
AL3452	OPERATING SYSTEMS	Ms.A.Mohanadevi
CS3492	DATABASE MANAGEMENT SYSTEMS	Dr.S.Rajalakshmi
CW3401	INTRODUCTION TO BUSINESS SYSTEMS	Mr.S.Saravanan
GE3451	ENVIRONMENTAL SCIENCES AND SUSTAINABILITY	Mr.A.Lakshmanan
MA3391	PROBABILITY AND STATISTICS	Dr.S.Sivamani

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:4 Section:A: Assessment Test -2 Sem Period:23-24EVEN

S.no	Regno	Batchno	Name	AL3451	AL3452	CS3492	CW3401	GE3451	MA3391	Total	AVG	Att%
1	813822244001	259001	AADHITYAA. S A	52	26	40	64	42	62	286	47.67	100.00[568.0,(
2	813822244002	259002	ABISHEK. S	24	24	42	56	33	76	255	42.50	99.12[568.0,5
3	813822244003	259003	AKSHAYAGIRI. K	2	2	A	32	41	50	127	21.17	90.67[568.0,5
4	813822244004	259004	ARUNA. B	62	40	64	66	50	86	368	61.33	94.54[568.0,3
5	813822244005	259005	ASWATHI. M	50	38	60	62	33	36	279	46.50	91.55[568.0,4
6	813822244007	259006	BAGYALAKSHMI. G	64	38	60	42	36	72	312	52.00	100.00[568.0,(
7	813822244008	259007	BHAVADHARINI. D	78	70	92	74	50	96	460	76.67	94.37[568.0,3
8	813822244009	259008	DAVIDSON JOSHUA. R	36	32	56	50	51	58	283	47.17	95.95[568.0,2
9	813822244010	259009	DEEPTI. S	72	66	74	65	64	96	437	72.83	97.36[568.0,1
10	813822244011	259010	DEVANANTHAM. A	40	4	30	58	39	64	235	39.17	90.32[568.0,5
11	813822244012	259011	DHAANUSH. C	50	26	66	52	42	58	294	49.00	97.89[568.0,1
12	813822244013	259012	DHIVYA. J	92	62	84	80	66	98	482	80.33	97.18[568.0,1
13	813822244014	259013	DINESH. T A	42	44	54	50	39	56	285	47.50	91.73[568.0,4
14	813822244015	259014	GURU PRASATH. M	38	50	50	60	51	60	309	51.50	98.59[568.0,8
15	813822244016	259015	HARINI. B	50	52	78	64	57	84	385	64.17	97.54[568.0,1
16	813822244017	259016	HARSAVARDAN. B	8	56	A	38	50	50	202	33.67	86.97[568.0,7
17	813822244018	259017	HEM NITHISH. M	72	70	62	56	53	54	367	61.17	96.83[568.0,1
18	813822244019	259018	INDUJA. R	56	38	58	52	37	40	281	46.83	94.37[568.0,3
19	813822244021	259020	JANUPRIYA. S S	68	38	64	52	60	62	344	57.33	92.61[568.0,4
20	813822244023	259021	KARAN RAJ. P	14	A	6	34	A	30	84	14.00	75.88[568.0,1
21	813822244024	259022	KARTHIK. P	38	42	52	60	46	84	322	53.67	95.25[568.0,2
22	813822244025	259023	KAVIYARASAN. S	70	64	50	50	54	90	378	63.00	95.60[568.0,2
23	813822244026	259024	KAVYA SRI. T	68	60	84	58	50	96	416	69.33	95.77[568.0,2
24	813822244027	259025	KETHZIA. E	40	50	66	58	50	84	348	58.00	96.30[568.0,2
25	813822244028	259026	KRISHNA KUMAR. S	28	8	12	68	A	40	156	26.00	89.26[568.0,6
26	813822244029	259027	MADHESH. V	38	16	40	66	30	56	246	41.00	85.21[568.0,8
27	813822244030	259028	MADHUSUDHANAN. S	58	56	70	52	50	72	358	59.67	90.14[568.0,5
28	813822244031	259029	MAHALAKSHMI. M	60	20	56	54	52	56	298	49.67	95.60[568.0,2
29	813822244032	259030	MAHALAKSHMI. S	64	36	74	58	39	62	333	55.50	92.08[568.0,4
30	813822244033	259031	MAHATI. S	56	80	86	64	61	88	435	72.50	91.37[568.0,4
31	813822244034	259032	MERLIN. M	76	60	90	72	43	94	435	72.50	95.95[568.0,2
32	813822244035	259033	MOHAMED ISHAQ. M	14	2	6	50	13	6	91	15.17	85.39[568.0,8
33	813822244036	259034	MYTHREYAN. M	4	4	46	38	50	50	192	32.00	97.36[568.0,1
34	813822244038	259036	NAVEEN KANNAN. A C	74	64	74	64	45	94	415	69.17	93.66[568.0,3
35	813822244039	259037	NAVINESH. K	58	64	70	60	43	96	391	65.17	92.78[568.0,4
36	813822244040	259038	PRAGATHEESH. A	50	36	40	42	44	60	272	45.33	93.31[568.0,3
37	813822244041	259039	PRASANNA. M E	6	A	8	30	21	28	93	15.50	80.63[568.0,1
38	813822244042	259040	RAGHUPATHY. M	50	62	74	54	54	52	346	57.67	94.01[568.0,3
39	813822244043	259041	RAKESH. R	18	A	58	50	A	A	126	21.00	73.59[568.0,1

40	813822244044	259042	ROHIT SURYA. L K	0	A	A	A	A	A	0	.00	70.60[568.0,1
41	813822244045	259043	SANJAI. R	A	4	A	A	26	A	30	5.00	64.08[568.0,2
42	813822244046	259044	SANJAY. I	0	A	A	10	A	A	10	1.67	78.17[568.0,1
43	813822244047	259045	SHYAMSUNDAR. V	8	14	24	42	22	52	162	27.00	95.95[568.0,2
44	813822244048	259046	SIVAMANIKANDAN. R	0	28	24	40	5	38	135	22.50	84.68[568.0,8
45	813822244049	259047	STEPHY BLESS. S	90	68	80	60	64	88	450	75.00	97.18[568.0,1
46	813822244050	259048	SUWETHA. A	82	50	78	72	47	74	403	67.17	98.42[568.0,9
47	813822244051	259049	TANIA MICHELLE. A	50	50	68	64	65	A	297	49.50	90.14[568.0,5
48	813822244052	259050	TEDDY SAMSON. F	64	64	74	70	76	58	406	67.67	91.73[568.0,4
49	813822244053	259051	THARUN. S	28	64	70	50	50	62	324	54.00	88.38[568.0,6
50	813822244054	259052	UDAY. R	82	68	70	50	50	78	398	66.33	95.25[568.0,2
51	813822244055	259053	VASANTH. V	76	52	80	70	56	72	406	67.67	96.83[568.0,1
52	813822244056	259054	VENKATESAN. L	56	52	52	56	33	46	295	49.17	95.95[568.0,2
53	813822244057	259055	VIKRAM. M	30	32	44	52	41	64	263	43.83	89.79[568.0,5
54	813822244058	259056	YAGALE. E	62	52	70	60	56	82	382	63.67	96.30[568.0,2
55	813822244006	259057	AVINASH. M	0	18	8	44	A	52	122	20.33	93.13[568.0,3
56	813822244022	259058	JENCY FEDILIA. C	54	50	40	62	36	54	296	49.33	86.44[568.0,7

Performance Analysis

Total Appeared	56	56	56	56	56	56
Total Passed	32	26	36	43	25	43
Total Failed(Fail + Absent)	24	30	20	13	31	13
Above 80	4	1	7	1	0	15
Between 50-59	13	11	9	21	18	14
Pass%	**57**	**46**	**64**	**77**	**45**	**77**

Subcode	Title	Faculty Name
AL3451	MACHINE LEARNING	Mr.R.Kannan
AL3452	OPERATING SYSTEMS	Ms.A.Mohanadevi
CS3492	DATABASE MANAGEMENT SYSTEMS	Dr.S.Rajalakshmi
CW3401	INTRODUCTION TO BUSINESS SYSTEMS	Mr.S.Saravanan
GE3451	ENVIRONMENTAL SCIENCES AND SUSTAINABILITY	Mr.A.Lakshmanan
MA3391	PROBABILITY AND STATISTICS	Dr.S.Sivamani

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:4 Section:A: Assessment Test -3 Sem Period:23-24EVEN

S.no	Regno	Batchno	Name	AL3451	AL3452	CS3492	CW3401	GE3451	MA3391	Total	AVG	Att%
1	813822244001	259001	AADHITYAA. S A	50	26	58	70	50	40	294	49.00	100.00[568.0,(
2	813822244002	259002	ABISHEK. S	10	26	72	46	35	52	241	40.17	99.12[568.0,5
3	813822244003	259003	AKSHAYAGIRI. K	6	6	48	46	50	50	206	34.33	90.67[568.0,5
4	813822244004	259004	ARUNA. B	64	50	78	62	56	42	352	58.67	94.54[568.0,3
5	813822244005	259005	ASWATHI. M	54	26	70	74	46	38	308	51.33	91.55[568.0,4
6	813822244007	259006	BAGYALAKSHMI. G	58	32	58	44	47	62	301	50.17	100.00[568.0,(
7	813822244008	259007	BHAVADHARINI. D	68	58	90	64	65	72	417	69.50	94.37[568.0,3
8	813822244009	259008	DAVIDSON JOSHUA. R	30	38	60	64	47	52	291	48.50	95.95[568.0,2
9	813822244010	259009	DEEPTI. S	88	70	88	68	70	72	456	76.00	97.36[568.0,1
10	813822244011	259010	DEVANANTHAM. A	20	16	76	46	50	32	240	40.00	90.32[568.0,5
11	813822244012	259011	DHAANUSH. C	28	50	68	68	37	52	303	50.50	97.89[568.0,1
12	813822244013	259012	DHIVYA. J	96	80	88	88	72	76	500	83.33	97.18[568.0,1
13	813822244014	259013	DINESH. T A	18	56	66	52	58	72	322	53.67	91.73[568.0,4
14	813822244015	259014	GURU PRASATH. M	38	50	80	58	38	54	318	53.00	98.59[568.0,8
15	813822244016	259015	HARINI. B	60	56	76	68	51	58	369	61.50	97.54[568.0,1
16	813822244017	259016	HARSAVARDAN. B	34	18	64	50	34	38	238	39.67	86.97[568.0,7
17	813822244018	259017	HEM NITHISH. M	50	54	78	64	55	52	353	58.83	96.83[568.0,1
18	813822244019	259018	INDUJA. R	28	50	76	56	57	52	319	53.17	94.37[568.0,3
19	813822244021	259020	JANUPRIYA. S S	68	66	80	64	72	66	416	69.33	92.61[568.0,4
20	813822244023	259021	KARAN RAJ. P	A	32	22	32	52	12	150	25.00	75.88[568.0,1
21	813822244024	259022	KARTHIK. P	72	58	68	46	46	68	358	59.67	95.25[568.0,2
22	813822244025	259023	KAVIYARASAN. S	70	50	56	44	53	52	325	54.17	95.60[568.0,2
23	813822244026	259024	KAVYA SRI. T	56	56	82	66	73	70	403	67.17	95.77[568.0,2
24	813822244027	259025	KETHZIA. E	58	60	74	60	59	88	399	66.50	96.30[568.0,2
25	813822244028	259026	KRISHNA KUMAR. S	14	30	40	38	3	18	143	23.83	89.26[568.0,6
26	813822244029	259027	MADHESH. V	A	52	58	A	51	50	211	35.17	85.21[568.0,8
27	813822244030	259028	MADHUSUDHANAN. S	64	54	80	64	63	44	369	61.50	90.14[568.0,5
28	813822244031	259029	MAHALAKSHMI. M	26	32	52	52	56	28	246	41.00	95.60[568.0,2
29	813822244032	259030	MAHALAKSHMI. S	50	38	64	40	59	42	293	48.83	92.08[568.0,4
30	813822244033	259031	MAHATI. S	A	76	74	A	70	80	300	50.00	91.37[568.0,4
31	813822244034	259032	MERLIN. M	70	64	76	68	63	56	397	66.17	95.95[568.0,2
32	813822244035	259033	MOHAMED ISHAQ. M	A	40	32	52	2	12	138	23.00	85.39[568.0,8
33	813822244036	259034	MYTHREYAN. M	8	50	56	14	53	30	211	35.17	97.36[568.0,1
34	813822244038	259036	NAVEEN KANNAN. A C	64	68	66	70	59	66	393	65.50	93.66[568.0,3
35	813822244039	259037	NAVINESH. K	60	64	60	60	37	64	345	57.50	92.78[568.0,4
36	813822244040	259038	PRAGATHEESH. A	52	56	60	42	67	78	355	59.17	93.31[568.0,3
37	813822244041	259039	PRASANNA. M E	6	4	40	34	20	6	110	18.33	80.63[568.0,1
38	813822244042	259040	RAGHUPATHY. M	58	66	64	66	65	30	349	58.17	94.01[568.0,3
39	813822244043	259041	RAKESH. R	36	64	66	38	65	48	317	52.83	73.59[568.0,1

40	813822244044	259042	ROHIT SURYA. L K	26	60	44	16	55	0	201	33.50	70.60[568.0,1
41	813822244045	259043	SANJAI. R	A	10	64	45	7	22	148	24.67	64.08[568.0,2
42	813822244046	259044	SANJAY. I	0	30	32	26	33	4	125	20.83	78.17[568.0,1
43	813822244047	259045	SHYAMSUNDAR. V	30	44	42	42	44	28	230	38.33	95.95[568.0,2
44	813822244048	259046	SIVAMANIKANDAN. R	8	26	40	38	37	14	163	27.17	84.68[568.0,8
45	813822244049	259047	STEPHY BLESS. S	80	56	54	62	80	58	390	65.00	97.18[568.0,1
46	813822244050	259048	SUWETHA. A	72	68	76	86	57	78	437	72.83	98.42[568.0,9
47	813822244051	259049	TANIA MICHELLE. A	56	42	76	64	69	28	335	55.83	90.14[568.0,5
48	813822244052	259050	TEDDY SAMSON. F	60	54	78	80	61	52	385	64.17	91.73[568.0,4
49	813822244053	259051	THARUN. S	A	52	54	50	63	60	279	46.50	88.38[568.0,6
50	813822244054	259052	UDAY. R	80	66	68	50	64	84	412	68.67	95.25[568.0,2
51	813822244055	259053	VASANTH. V	74	62	80	60	54	36	366	61.00	96.83[568.0,1
52	813822244056	259054	VENKATESAN. L	42	52	68	64	40	40	306	51.00	95.95[568.0,2
53	813822244057	259055	VIKRAM. M	14	40	36	46	32	36	204	34.00	89.79[568.0,5
54	813822244058	259056	YAGALE. E	50	58	62	50	60	62	342	57.00	96.30[568.0,2
55	813822244006	259057	AVINASH. M	4	22	24	20	29	0	99	16.50	93.13[568.0,3
56	813822244022	259058	JENCY FEDILIA. C	30	40	16	60	55	32	233	38.83	86.44[568.0,7

Performance Analysis

Total Appeared	56	56	56	56	56	56
Total Passed	28	34	44	34	37	30
Total Failed(Fail + Absent)	28	22	12	22	19	26
Above 80	4	1	8	3	1	3
Between 50-59	11	20	8	9	20	13
Pass%	**50**	**61**	**79**	**61**	**66**	**54**

Subcode	Title	Faculty Name
AL3451	MACHINE LEARNING	Mr.R.Kannan
AL3452	OPERATING SYSTEMS	Ms.A.Mohanadevi
CS3492	DATABASE MANAGEMENT SYSTEMS	Dr.S.Rajalakshmi
CW3401	INTRODUCTION TO BUSINESS SYSTEMS	Mr.S.Saravanan
GE3451	ENVIRONMENTAL SCIENCES AND SUSTAINABILITY	Mr.A.Lakshmanan
MA3391	PROBABILITY AND STATISTICS	Dr.S.Sivamani

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Classwise Internal Assessment Mark Report

Class:CSBS Semester:6 Section:A: Assessment Test -1 Sem Period:23-24EVEN

S.no	Regno	Batchno	Name	CCS346	CCS356	CCS360	CCW331	CCW332	CW3007	Total	AVG	Att%
1	813821244001	249001	AAKASH. A	56	50	72	70	60	58	366	61.00	100.00[515.0,
2	813821244002	249002	AARTHY. T	54	32	76	72	60	62	356	59.33	93.59[515.0,3
3	813821244003	249003	ABDUR RAHMAN ASHIK. A	28	16	53	88	40	44	269	44.83	73.01[515.0,1
4	813821244004	249004	ABINAYA. M	66	44	68	70	58	64	370	61.67	86.60[515.0,6
5	813821244005	249005	ADHESH. J	52	32	80	88	72	60	384	64.00	87.18[515.0,6
6	813821244006	249006	AMIRTA LAKSHMI. M E	56	A	A	A	A	68	124	20.67	64.08[515.0,1
7	813821244007	249007	ANIRUTH RAGAVENDRA. S	60	66	A	86	68	82	362	60.33	84.66[515.0,7
8	813821244008	249008	ARIKARAN. K	6	14	40	44	42	A	146	24.33	76.89[515.0,1
9	813821244009	249009	ARULNITHI. A	8	0	34	42	A	28	112	18.67	75.53[515.0,1
10	813821244010	249010	ARUN. J	64	26	66	84	56	64	360	60.00	90.10[515.0,5
11	813821244011	249011	ATHISH VARSHEN. N	70	60	58	84	58	66	396	66.00	76.89[515.0,1
12	813821244012	249012	AYSHWARYA. S	38	80	74	84	54	80	410	68.33	96.12[515.0,2
13	813821244013	249013	BHARATH KANNAN. R	58	10	60	70	56	52	306	51.00	66.21[515.0,1
14	813821244014	249014	BOWTHRIYA. S	42	40	50	72	58	66	328	54.67	88.16[515.0,6
15	813821244015	249015	BRINDHA. M	74	58	72	84	72	92	452	75.33	92.23[515.0,4
16	813821244016	249016	CHRISHA MAGDALIN. M	80	54	82	96	72	82	466	77.67	91.07[515.0,4
17	813821244017	249017	DEEPIKA. S	68	46	76	52	56	62	360	60.00	96.12[515.0,2
18	813821244018	249018	DHARANI. S	40	40	38	64	30	58	270	45.00	91.46[515.0,4
19	813821244019	249019	FARGANA BEGUM. A	64	52	72	80	62	74	404	67.33	89.90[515.0,5
20	813821244020	249020	GIRIVASAN A B	32	4	26	32	36	40	170	28.33	84.85[515.0,7
21	813821244021	249021	GOKUL RAJ. V	52	32	50	66	50	66	316	52.67	84.27[515.0,8
22	813821244022	249022	GOWSALYA. P	50	50	64	74	56	68	362	60.33	82.91[515.0,8
23	813821244023	249023	GURU RATCHITHA. S	64	82	80	80	54	68	428	71.33	82.14[515.0,9
24	813821244026	249024	HARI PRASATH. M	34	24	44	62	50	66	280	46.67	68.35[515.0,1
25	813821244024	249025	HARICHARAN. T	14	10	20	14	16	22	96	16.00	69.32[515.0,1
26	813821244025	249026	HARINI. R S	52	52	76	82	42	66	370	61.67	87.96[515.0,6
27	813821244027	249027	HARSHINI. S	74	68	66	82	52	76	418	69.67	91.46[515.0,4
28	813821244028	249028	ISHANIKA. V	36	60	60	82	50	76	364	60.67	90.10[515.0,5
29	813821244029	249029	JAIAKASH. K	70	40	50	82	50	76	368	61.33	95.92[515.0,2
30	813821244030	249030	JANANI. K M	50	28	76	82	60	74	370	61.67	76.31[515.0,1
31	813821244031	249031	KIRUTHIKA SHREE. B	62	64	50	A	40	68	284	47.33	91.26[515.0,4
32	813821244032	249032	MADHINI. K	50	40	52	74	50	62	328	54.67	89.51[515.0,5
33	813821244033	249033	MANIKANDAN. S	50	30	52	68	50	62	312	52.00	92.62[515.0,3
34	813821244034	249034	MOHAMED ASAR. N	10	16	50	54	26	52	208	34.67	76.70[515.0,1
35	813821244035	249035	MOHAMED SAMEER. S	4	42	34	74	56	6	216	36.00	65.05[515.0,1
36	813821244036	249036	MOHAMED SHAFIK. N	50	54	72	72	70	76	394	65.67	91.84[515.0,4

37	813821244037	249037	MOHAMMED YASEEN. S	16	10	42	56	50	26	200	33.33	82.52[515.0,9
38	813821244038	249038	MONISHA. N	50	20	64	A	52	72	258	43.00	63.11[515.0,1
39	813821244039	249039	MUKILAN. K B	4	12	30	22	14	24	106	17.67	59.61[515.0,2
40	813821244040	249040	MURUGANANDAM. P	60	40	42	64	52	68	326	54.33	91.46[515.0,4
41	813821244041	249041	NARENDRAN. S P	72	74	74	90	76	84	470	78.33	95.73[515.0,2
42	813821244042	249042	NAVEEN RAJ. K	8	4	28	34	24	14	112	18.67	64.66[515.0,1
43	813821244043	249043	NEVIN RICHARD AUSTIN. S	16	18	50	74	34	52	244	40.67	82.52[515.0,9
44	813821244044	249044	PIERRS. I K	62	82	64	74	70	74	426	71.00	88.35[515.0,6
45	813821244045	249045	PRATHIKSHAA. S S	76	64	80	94	62	90	466	77.67	85.24[515.0,7
46	813821244046	249046	PRINCE GAUTHAM. V	16	14	44	50	36	36	196	32.67	79.03[515.0,1
47	813821244047	249047	RAHUL. R	12	4	20	A	26	42	104	17.33	76.89[515.0,1
48	813821244048	249048	RAJESHWARAN. M	66	38	42	76	54	46	322	53.67	89.32[515.0,5
49	813821244049	249049	RAMCHIDAMBAR. BA	70	50	56	80	50	74	380	63.33	85.44[515.0,7
50	813821244050	249050	REETHIKA. S	76	54	76	86	68	92	452	75.33	85.63[515.0,7
51	813821244051	249051	REVAN JOSH. J	50	34	76	90	50	76	376	62.67	87.38[515.0,6
52	813821244052	249052	SAKTHIKEERTHIKA. T	68	80	70	80	58	86	442	73.67	91.65[515.0,4
53	813821244053	249053	SHAM. S	50	56	72	78	54	60	370	61.67	80.58[515.0,1
54	813821244054	249054	SHOBANA DEVI. S	52	66	74	84	78	82	436	72.67	86.02[515.0,7
55	813821244055	249055	SINDUJA. T	60	66	72	72	56	92	418	69.67	82.72[515.0,8
56	813821244056	249056	SOORYA. S	52	34	50	50	54	22	262	43.67	81.94[515.0,9
57	813821244057	249057	SRIRAM. G K	62	50	68	52	56	62	350	58.33	91.07[515.0,4
58	813821244058	249058	SUDARVIZHI. L	90	84	80	92	80	82	508	84.67	93.40[515.0,3
59	813821244059	249059	SURIYANARAYANAN. G	64	40	56	50	54	50	314	52.33	98.45[515.0,8
60	813821244060	249060	THESIGAN. S	42	30	68	74	56	62	332	55.33	91.46[515.0,4
61	813821244061	249061	VISHWA. M	26	0	32	1	22	42	123	20.50	74.56[515.0,1
62	813821244062	249062	YUVADHARSHINI. V	40	0	62	66	50	58	276	46.00	81.55[515.0,9
63	813821244302	249063	KARTHICK. K	50	26	50	64	52	70	312	52.00	87.38[515.0,6
64	813821244301	249064	AARON. J	42	20	64	78	70	58	332	55.33	84.08[515.0,8

Performance Analysis

Total Appeared	64	64	64	64	64	64
Total Passed	42	25	47	53	48	50
Total Failed(Fail + Absent)	22	39	17	11	16	14
Above 80	2	5	5	23	1	11
Between 50-59	18	11	14	7	32	8
Pass%	**66**	**39**	**73**	**83**	**75**	**78**

Subcode	Title	Faculty Name
CCS346	Exploratory Data Analysis	Ms.A.Mohanadevi
CCS356	Object Oriented Software Engineering	Dr.S.Venkatasubramanian
CCS360	Recommender Systems	Dr.B.Rethina Kumar
CCW331	Business Analytics	Ms.K.Gomathi
CCW332	Digital marketing	Ms.A.Thenmozhi
CW3007	IT Project Management	Ms.A.Sheelavathi

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Classwise Internal Assessment Mark Report

Class:CSBS Semester:6 Section:A: Assessment Test -2 Sem Period:23-24EVEN

S.no	Regno	Batchno	Name	CCS346	CCS356	CCS360	CCW331	CCW332	CW3007	Total	AVG	Att%
1	813821244001	249001	AAKASH. A	50	64	60	52	60	64	350	58.33	100.00[515.0,
2	813821244002	249002	AARTHY. T	58	66	72	80	70	92	438	73.00	93.59[515.0,3
3	813821244003	249003	ABDUR RAHMAN ASHIK. A	22	36	50	50	36	42	236	39.33	73.01[515.0,1
4	813821244004	249004	ABINAYA. M	56	42	50	70	60	86	364	60.67	86.60[515.0,6
5	813821244005	249005	ADHESH. J	38	50	54	72	58	74	346	57.67	87.18[515.0,6
6	813821244006	249006	AMIRTA LAKSHMI. M E	A	84	A	50	62	A	196	32.67	64.08[515.0,1
7	813821244007	249007	ANIRUTH RAGAVENDRA. S	72	62	70	72	72	86	434	72.33	84.66[515.0,7
8	813821244008	249008	ARIKARAN. K	16	44	60	30	20	22	192	32.00	76.89[515.0,1
9	813821244009	249009	ARULNITHI. A	10	8	30	40	18	24	130	21.67	75.53[515.0,1
10	813821244010	249010	ARUN. J	52	44	64	74	72	68	374	62.33	90.10[515.0,5
11	813821244011	249011	ATHISH VARSHEN. N	32	58	60	56	52	76	334	55.67	76.89[515.0,1
12	813821244012	249012	AYSHWARYA. S	56	80	66	92	56	72	422	70.33	96.12[515.0,2
13	813821244013	249013	BHARATH KANNAN. R	50	28	52	60	52	44	286	47.67	66.21[515.0,1
14	813821244014	249014	BOWTHRIYA. S	58	40	50	56	44	74	322	53.67	88.16[515.0,6
15	813821244015	249015	BRINDHA. M	72	56	74	94	72	80	448	74.67	92.23[515.0,4
16	813821244016	249016	CHRISHA MAGDALIN. M	74	88	64	74	A	78	378	63.00	91.07[515.0,4
17	813821244017	249017	DEEPIKA. S	74	60	76	78	64	70	422	70.33	96.12[515.0,2
18	813821244018	249018	DHARANI. S	56	52	50	76	50	72	356	59.33	91.46[515.0,4
19	813821244019	249019	FARGANA BEGUM. A	54	68	62	75	58	66	383	63.83	89.90[515.0,5
20	813821244020	249020	GIRIVASAN A B	12	28	36	18	14	A	108	18.00	84.85[515.0,7
21	813821244021	249021	GOKUL RAJ. V	4	30	52	62	50	58	256	42.67	84.27[515.0,8
22	813821244022	249022	GOWSALYA. P	64	A	60	76	54	82	336	56.00	82.91[515.0,8
23	813821244023	249023	GURU RATCHITHA. S	56	80	62	74	54	62	388	64.67	82.14[515.0,9
24	813821244026	249024	HARI PRASATH. M	32	26	50	34	38	68	248	41.33	68.35[515.0,1
25	813821244024	249025	HARICHARAN. T	14	26	32	54	20	14	160	26.67	69.32[515.0,1
26	813821244025	249026	HARINI. R S	44	56	58	70	40	72	340	56.67	87.96[515.0,6
27	813821244027	249027	HARSHINI. S	74	68	60	92	56	84	434	72.33	91.46[515.0,4
28	813821244028	249028	ISHANIKA. V	54	54	54	66	60	80	368	61.33	90.10[515.0,5
29	813821244029	249029	JAIAKASH. K	56	50	50	56	44	88	344	57.33	95.92[515.0,2
30	813821244030	249030	JANANI. K M	A	56	52	70	66	78	322	53.67	76.31[515.0,1
31	813821244031	249031	KIRUTHIKA SHREE. B	54	60	54	60	50	86	364	60.67	91.26[515.0,4
32	813821244032	249032	MADHINI. K	50	34	52	68	52	78	334	55.67	89.51[515.0,5
33	813821244033	249033	MANIKANDAN. S	58	40	50	25	62	74	309	51.50	92.62[515.0,3
34	813821244034	249034	MOHAMED ASAR. N	14	34	40	20	42	36	186	31.00	76.70[515.0,1
35	813821244035	249035	MOHAMED SAMEER. S	8	4	16	4	8	16	56	9.33	65.05[515.0,1
36	813821244036	249036	MOHAMED SHAFIK. N	28	74	70	70	64	66	372	62.00	91.84[515.0,4

37	813821244037	249037	MOHAMMED YASEEN. S	30	62	42	28	22	52	236	39.33	82.52[515.0,9
38	813821244038	249038	MONISHA. N	34	A	A	A	A	92	126	21.00	63.11[515.0,1
39	813821244039	249039	MUKILAN. K B	2	18	50	32	24	4	130	21.67	59.61[515.0,2
40	813821244040	249040	MURUGANANDAM. P	42	58	64	64	58	72	358	59.67	91.46[515.0,4
41	813821244041	249041	NARENDRAN. S P	92	66	68	96	62	86	470	78.33	95.73[515.0,2
42	813821244042	249042	NAVEEN RAJ. K	8	18	12	14	28	10	90	15.00	64.66[515.0,1
43	813821244043	249043	NEVIN RICHARD AUSTIN. S	38	26	20	16	50	68	218	36.33	82.52[515.0,9
44	813821244044	249044	PIERRS. I K	72	94	66	86	74	80	472	78.67	88.35[515.0,6
45	813821244045	249045	PRATHIKSHAA. S S	74	80	76	96	66	92	484	80.67	85.24[515.0,7
46	813821244046	249046	PRINCE GAUTHAM. V	8	50	30	22	A	40	150	25.00	79.03[515.0,1
47	813821244047	249047	RAHUL. R	A	0	8	12	22	6	48	8.00	76.89[515.0,1
48	813821244048	249048	RAJESHWARAN. M	28	58	54	78	26	82	326	54.33	89.32[515.0,5
49	813821244049	249049	RAMCHIDAMBAR. BA	28	70	70	56	12	86	322	53.67	85.44[515.0,7
50	813821244050	249050	REETHIKA. S	66	84	66	A	70	74	360	60.00	85.63[515.0,7
51	813821244051	249051	REVAN JOSH. J	22	60	64	36	52	72	306	51.00	87.38[515.0,6
52	813821244052	249052	SAKTHIKEERTHIKA. T	86	74	60	68	68	80	436	72.67	91.65[515.0,4
53	813821244053	249053	SHAM. S	54	60	52	42	18	64	290	48.33	80.58[515.0,1
54	813821244054	249054	SHOBANA DEVI. S	56	70	80	78	62	88	434	72.33	86.02[515.0,7
55	813821244055	249055	SINDUJA. T	64	62	72	72	50	82	402	67.00	82.72[515.0,8
56	813821244056	249056	SOORYA. S	36	60	50	52	54	40	292	48.67	81.94[515.0,9
57	813821244057	249057	SRIRAM. G K	26	80	66	60	50	66	348	58.00	91.07[515.0,4
58	813821244058	249058	SUDARVIZHI. L	90	90	74	86	84	92	516	86.00	93.40[515.0,3
59	813821244059	249059	SURIYANARAYANAN. G	52	66	50	68	28	58	322	53.67	98.45[515.0,8
60	813821244060	249060	THESIGAN. S	26	44	58	62	30	58	278	46.33	91.46[515.0,4
61	813821244061	249061	VISHWA. M	A	20	22	12	A	A	54	9.00	74.56[515.0,1
62	813821244062	249062	YUVADHARSHINI. V	12	40	A	56	46	34	188	31.33	81.55[515.0,9
63	813821244302	249063	KARTHICK. K	10	54	32	62	36	36	230	38.33	87.38[515.0,6
64	813821244301	249064	AARON. J	34	50	64	50	70	64	332	55.33	84.08[515.0,8

Performance Analysis

Total Appeared	64	64	64	64	64	64
Total Passed	31	40	49	46	38	47
Total Failed(Fail + Absent)	33	24	15	18	26	17
Above 80	3	9	1	8	1	19
Between 50-59	18	13	21	11	18	4
Pass%	**48**	**63**	**77**	**72**	**59**	**73**

Subcode	Title	Faculty Name
CCS346	Exploratory Data Analysis	Ms.A.Mohanadevi
CCS356	Object Oriented Software Engineering	Dr.S.Venkatasubramanian
CCS360	Recommender Systems	Dr.B.Rethina Kumar
CCW331	Business Analytics	Ms.K.Gomathi
CCW332	Digital marketing	Ms.A.Thenmozhi
CW3007	IT Project Management	Ms.A.Sheelavathi

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:6 Section:A: Assessment Test -3 Sem Period:23-24EVEN

S.no	Regno	Batchno	Name	CCS346	CCS356	CCS360	CCW331	CCW332	CW3007	Total	AVG	Att%
1	813821244001	249001	AAKASH. A	54	66	50	50	56	62	338	56.33	100.00[515.0,
2	813821244002	249002	AARTHY. T	20	71	70	80	70	80	391	65.17	93.59[515.0,3
3	813821244003	249003	ABDUR RAHMAN ASHIK. A	A	A	A	A	A	A	0	.00	73.01[515.0,1
4	813821244004	249004	ABINAYA. M	A	67	50	74	62	86	339	56.50	86.60[515.0,6
5	813821244005	249005	ADHESH. J	50	46	50	54	52	62	314	52.33	87.18[515.0,6
6	813821244006	249006	AMIRTA LAKSHMI. M E	0	A	A	A	A	A	0	.00	64.08[515.0,1
7	813821244007	249007	ANIRUTH RAGAVENDRA. S	68	59	65	88	70	90	440	73.33	84.66[515.0,7
8	813821244008	249008	ARIKARAN. K	A	61	25	16	44	32	178	29.67	76.89[515.0,1
9	813821244009	249009	ARULNITHI. A	6	40	20	34	8	24	132	22.00	75.53[515.0,1
10	813821244010	249010	ARUN. J	4	62	5	4	A	22	97	16.17	90.10[515.0,5
11	813821244011	249011	ATHISH VARSHEN. N	40	63	A	50	A	72	225	37.50	76.89[515.0,1
12	813821244012	249012	AYSHWARYA. S	50	67	30	62	64	60	333	55.50	96.12[515.0,2
13	813821244013	249013	BHARATH KANNAN. R	A	A	A	A	A	A	0	.00	66.21[515.0,1
14	813821244014	249014	BOWTHRIYA. S	58	69	50	88	62	94	421	70.17	88.16[515.0,6
15	813821244015	249015	BRINDHA. M	62	68	72	80	74	94	450	75.00	92.23[515.0,4
16	813821244016	249016	CHRISHA MAGDALIN. M	70	70	80	94	62	90	466	77.67	91.07[515.0,4
17	813821244017	249017	DEEPIKA. S	50	67	60	74	64	88	403	67.17	96.12[515.0,2
18	813821244018	249018	DHARANI. S	34	66	60	26	68	70	324	54.00	91.46[515.0,4
19	813821244019	249019	FARGANA BEGUM. A	22	57	66	28	60	62	295	49.17	89.90[515.0,5
20	813821244020	249020	GIRIVASAN A B	8	46	A	18	24	16	112	18.67	84.85[515.0,7
21	813821244021	249021	GOKUL RAJ. V	A	52	5	6	8	8	79	13.17	84.27[515.0,8
22	813821244022	249022	GOWSALYA. P	30	67	A	50	50	A	197	32.83	82.91[515.0,8
23	813821244023	249023	GURU RATCHITHA. S	50	66	55	24	A	64	259	43.17	82.14[515.0,9
24	813821244026	249024	HARI PRASATH. M	A	A	A	A	A	1	1	.17	68.35[515.0,1
25	813821244024	249025	HARICHARAN. T	8	22	12	22	24	18	106	17.67	69.32[515.0,1
26	813821244025	249026	HARINI. R S	30	54	62	76	54	50	326	54.33	87.96[515.0,6
27	813821244027	249027	HARSHINI. S	66	59	64	A	60	94	343	57.17	91.46[515.0,4
28	813821244028	249028	ISHANIKA. V	56	53	50	A	56	72	287	47.83	90.10[515.0,5
29	813821244029	249029	JAIAKASH. K	12	57	60	50	20	92	291	48.50	95.92[515.0,2
30	813821244030	249030	JANANI. K M	54	56	A	A	62	A	172	28.67	76.31[515.0,1
31	813821244031	249031	KIRUTHIKA SHREE. B	44	63	50	62	54	94	367	61.17	91.26[515.0,4
32	813821244032	249032	MADHINI. K	50	47	50	58	44	76	325	54.17	89.51[515.0,5
33	813821244033	249033	MANIKANDAN. S	40	57	18	70	60	52	297	49.50	92.62[515.0,3
34	813821244034	249034	MOHAMED ASAR. N	8	36	10	20	16	30	120	20.00	76.70[515.0,1
35	813821244035	249035	MOHAMED SAMEER. S	A	A	A	A	A	A	0	.00	65.05[515.0,1
36	813821244036	249036	MOHAMED SHAFIK. N	40	59	40	60	A	30	229	38.17	91.84[515.0,4

37	813821244037	249037	MOHAMMED YASEEN. S	24	46	56	72	30	34	262	43.67	82.52[515.0,9
38	813821244038	249038	MONISHA. N	80	56	50	80	78	92	436	72.67	63.11[515.0,1
39	813821244039	249039	MUKILAN. K B	A	A	A	A	A	A	0	.00	59.61[515.0,2
40	813821244040	249040	MURUGANANDAM. P	12	28	25	20	12	44	141	23.50	91.46[515.0,4
41	813821244041	249041	NARENDRAN. S P	70	54	56	92	A	66	338	56.33	95.73[515.0,2
42	813821244042	249042	NAVEEN RAJ. K	14	24	12	A	26	24	100	16.67	64.66[515.0,1
43	813821244043	249043	NEVIN RICHARD AUSTIN. S	16	28	12	36	30	36	158	26.33	82.52[515.0,9
44	813821244044	249044	PIERRS. I K	60	71	A	80	54	36	301	50.17	88.35[515.0,6
45	813821244045	249045	PRATHIKSHAA. S S	80	68	60	94	78	94	474	79.00	85.24[515.0,7
46	813821244046	249046	PRINCE GAUTHAM. V	2	60	14	16	6	10	108	18.00	79.03[515.0,1
47	813821244047	249047	RAHUL. R	2	0	12	10	30	20	74	12.33	76.89[515.0,1
48	813821244048	249048	RAJESHWARAN. M	6	50	50	18	22	36	182	30.33	89.32[515.0,5
49	813821244049	249049	RAMCHIDAMBAR. BA	44	55	40	10	56	24	229	38.17	85.44[515.0,7
50	813821244050	249050	REETHIKA. S	74	94	40	82	A	94	384	64.00	85.63[515.0,7
51	813821244051	249051	REVAN JOSH. J	16	60	18	50	38	44	226	37.67	87.38[515.0,6
52	813821244052	249052	SAKTHIKEERTHIKA. T	70	67	60	72	68	80	417	69.50	91.65[515.0,4
53	813821244053	249053	SHAM. S	8	50	10	60	44	26	198	33.00	80.58[515.0,1
54	813821244054	249054	SHOBANA DEVI. S	70	68	65	82	60	90	435	72.50	86.02[515.0,7
55	813821244055	249055	SINDUJA. T	68	62	55	94	70	90	439	73.17	82.72[515.0,8
56	813821244056	249056	SOORYA. S	10	58	12	18	20	20	138	23.00	81.94[515.0,9
57	813821244057	249057	SRIRAM. G K	50	68	40	46	42	62	308	51.33	91.07[515.0,4
58	813821244058	249058	SUDARVIZHI. L	84	75	70	A	74	94	397	66.17	93.40[515.0,3
59	813821244059	249059	SURIYANARAYANAN. G	18	50	50	50	32	24	224	37.33	98.45[515.0,8
60	813821244060	249060	THESIGAN. S	50	54	54	52	52	44	306	51.00	91.46[515.0,4
61	813821244061	249061	VISHWA. M	2	12	10	18	12	A	54	9.00	74.56[515.0,1
62	813821244062	249062	YUVADHARSHINI. V	12	22	A	34	34	62	164	27.33	81.55[515.0,9
63	813821244302	249063	KARTHICK. K	16	45	38	30	16	50	195	32.50	87.38[515.0,6
64	813821244301	249064	AARON. J	52	51	55	A	64	72	294	49.00	84.08[515.0,8

Performance Analysis

Total Appeared	64	64	64	64	64	64
Total Passed	25	44	30	31	29	33
Total Failed(Fail + Absent)	39	20	34	33	35	31
Above 80	3	1	1	12	0	17
Between 50-59	12	19	16	9	9	3
Pass%	**39**	**69**	**47**	**48**	**45**	**52**

Subcode	Title	Faculty Name
CCS346	Exploratory Data Analysis	Ms.A.Mohanadevi
CCS356	Object Oriented Software Engineering	Dr.S.Venkatasubramanian
CCS360	Recommender Systems	Dr.B.Rethina Kumar
CCW331	Business Analytics	Ms.K.Gomathi
CCW332	Digital marketing	Ms.A.Thenmozhi
CW3007	IT Project Management	Ms.A.Sheelavathi

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:3 Section:A: Assessment Test -1 Sem Period:23-24ODD

S.no	Regno	Batchno	Name	AD3351	AD3491	CS3351	CS3391	CW3301	MA3354	Total	AVG	Att%
1	813822244001	259001	AADHITYAA. S A	56	58	38	42	52	76	322	53.67	100.00[640.0,(
2	813822244002	259002	ABISHEK. S	25	42	66	26	52	74	285	47.50	97.34[640.0,1
3	813822244003	259003	AKSHAYAGIRI. K	58	50	32	40	50	62	292	48.67	94.69[640.0,3
4	813822244004	259004	ARUNA. B	54	46	62	58	62	80	362	60.33	93.28[640.0,4
5	813822244005	259005	ASWATHI. M	50	44	34	46	66	60	300	50.00	94.69[640.0,3
6	813822244007	259006	BAGYALAKSHMI. G	A	A	A	A	A	A	0	.00	88.59[640.0,7
7	813822244008	259007	BHAVADHARINI. D	82	80	86	92	74	96	510	85.00	100.00[640.0,(
8	813822244009	259008	DAVIDSON JOSHUA. R	60	52	44	20	0	84	260	43.33	98.75[640.0,8
9	813822244010	259009	DEEPTI. S	80	80	86	80	78	92	496	82.67	98.12[640.0,1
10	813822244011	259010	DEVANANTHAM. A	72	46	40	30	50	72	310	51.67	95.62[640.0,2
11	813822244012	259011	DHAANUSH. C	68	42	42	22	54	68	296	49.33	97.50[640.0,1
12	813822244013	259012	DHIVYA. J	92	92	80	86	82	96	528	88.00	96.88[640.0,2
13	813822244014	259013	DINESH. T A	50	50	74	52	32	72	330	55.00	91.09[640.0,5
14	813822244015	259014	GURU PRASATH. M	62	44	56	40	58	54	314	52.33	97.19[640.0,1
15	813822244016	259015	HARINI. B	64	62	70	54	76	90	416	69.33	98.59[640.0,9
16	813822244017	259016	HARSAVARDAN. B	74	56	46	56	54	72	358	59.67	82.97[640.0,1
17	813822244018	259017	HEM NITHISH. M	52	52	60	92	50	82	388	64.67	98.28[640.0,1
18	813822244019	259018	INDUJA. R	56	A	30	38	66	50	240	40.00	92.50[640.0,4
19	813822244021	259020	JANUPRIYA. S S	68	72	50	52	72	94	408	68.00	92.97[640.0,4
20	813822244023	259021	KARAN RAJ. P	50	26	16	14	22	56	184	30.67	89.22[640.0,6
21	813822244024	259022	KARTHIK. P	76	58	80	74	62	94	444	74.00	96.56[640.0,2
22	813822244025	259023	KAVIYARASAN. S	28	72	70	54	34	78	336	56.00	92.03[640.0,5
23	813822244026	259024	KAVYA SRI. T	76	82	82	80	78	98	496	82.67	94.38[640.0,3
24	813822244027	259025	KETHZIA. E	68	72	68	84	74	94	460	76.67	94.53[640.0,3
25	813822244028	259026	KRISHNA KUMAR. S	A	18	A	8	24	50	100	16.67	94.84[640.0,3
26	813822244029	259027	MADHESH. V	52	60	56	68	52	70	358	59.67	90.47[640.0,6
27	813822244030	259028	MADHUSUDHANAN. S	40	A	60	74	52	82	308	51.33	93.44[640.0,4
28	813822244031	259029	MAHALAKSHMI. M	30	58	54	46	52	80	320	53.33	96.56[640.0,2
29	813822244032	259030	MAHALAKSHMI. S	36	58	68	50	42	88	342	57.00	92.03[640.0,5
30	813822244033	259031	MAHATI. S	68	86	70	76	60	88	448	74.67	91.25[640.0,5
31	813822244034	259032	MERLIN. M	72	82	88	86	70	82	480	80.00	99.84[640.0,1
32	813822244035	259033	MOHAMED ISHAQ. M	16	50	A	64	56	50	236	39.33	79.06[640.0,1
33	813822244036	259034	MYTHREYAN. M	44	58	26	36	52	82	298	49.67	97.19[640.0,1
34	813822244038	259036	NAVEEN KANNAN. A C	52	74	64	70	62	84	406	67.67	94.06[640.0,3
35	813822244039	259037	NAVINESH. K	74	78	72	58	60	86	428	71.33	93.75[640.0,4
36	813822244040	259038	PRAGATHEESH. A	62	82	82	74	50	96	446	74.33	96.25[640.0,2
37	813822244041	259039	PRASANNA. M E	A	38	22	A	A	56	116	19.33	68.91[640.0,1
38	813822244042	259040	RAGHUPATHY. M	60	68	68	60	58	74	388	64.67	95.31[640.0,3
39	813822244043	259041	RAKESH. R	34	38	42	30	52	54	250	41.67	87.66[640.0,7

40	813822244044	259042	ROHIT SURYA. L K	68	28	16	18	28	36	194	32.33	82.81[640.0,1
41	813822244045	259043	SANJAI. R	32	50	32	54	62	88	318	53.00	85.47[640.0,9
42	813822244046	259044	SANJAY. I	50	14	18	20	30	50	182	30.33	94.69[640.0,3
43	813822244047	259045	SHYAMSUNDAR. V	36	56	56	34	50	70	302	50.33	88.28[640.0,7
44	813822244048	259046	SIVAMANIKANDAN. R	34	18	18	26	30	20	146	24.33	88.75[640.0,7
45	813822244049	259047	STEPHY BLESS. S	82	86	88	82	78	92	508	84.67	91.88[640.0,5
46	813822244050	259048	SUWETHA. A	72	60	58	52	74	88	404	67.33	97.50[640.0,1
47	813822244051	259049	TANIA MICHELLE. A	56	38	46	46	68	80	334	55.67	89.53[640.0,6
48	813822244052	259050	TEDDY SAMSON. F	68	64	26	50	74	82	364	60.67	88.91[640.0,7
49	813822244053	259051	THARUN. S	66	72	58	56	64	86	402	67.00	92.34[640.0,4
50	813822244054	259052	UDAY. R	74	86	84	84	66	92	486	81.00	92.34[640.0,4
51	813822244055	259053	VASANTH. V	54	66	70	72	52	84	398	66.33	94.69[640.0,3
52	813822244056	259054	VENKATESAN. L	24	72	42	66	56	74	334	55.67	95.62[640.0,2
53	813822244057	259055	VIKRAM. M	36	58	64	52	44	84	338	56.33	93.12[640.0,4
54	813822244058	259056	YAGALE. E	72	54	62	58	66	94	406	67.67	97.50[640.0,1
55	813822244006	259057	AVINASH. M	50	40	28	10	38	A	166	27.67	86.72[640.0,8
56	813822244022	259058	JENCY FEDILIA. C	50	50	34	44	50	66	294	49.00	93.75[640.0,4

Performance Analysis

Total Appeared	56	56	56	56	56	56
Total Passed	40	38	32	33	43	52
Total Failed(Fail + Absent)	16	18	24	23	13	4
Above 80	4	9	9	9	1	30
Between 50-59	15	16	7	14	20	8
Pass%	**71**	**68**	**57**	**59**	**77**	**93**

Subcode	Title	Faculty Name
AD3351	DESIGN AND ANALYSIS OF ALGORITHMS	Ms.P.Kaviya
AD3491	FUNDAMENTALS OF DATA SCIENCE AND ANALYTICS	Mr.R.Mohan Kumar
CS3351	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION	Ms.A.Mohanadevi
CS3391	OBJECT ORIENTED PROGRAMMING	Ms.A.Thenmozhi
CW3301	FUNDAMENTALS OF ECONOMICS	Mr.S.Saravanan
MA3354	DISCRETE MATHEMATICS	Dr.S.Sivamani

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:5 Section:A: Assessment Test -1 Sem Period:23-24ODD

S.no	Regno	Batchno	Name	CCS335	CCS367	CS3691	CW3501	CW3551	TP	Total	AVG	Att%
1	813821244001	249001	AAKASH. A	64	56	24	54	54	34	286	47.67	97.41[618.0,16
2	813821244002	249002	AARTHY. T	72	86	69	83	66	34	410	68.33	94.82[618.0,32
3	813821244003	249003	ABDUR RAHMAN ASHIK. A	12	60	10	62	50	40	234	39.00	89.00[618.0,68
4	813821244004	249004	ABINAYA. M	60	44	60	72	62	24	322	53.67	95.15[618.0,30
5	813821244005	249005	ADHESH. J	68	50	42	65	50	56	331	55.17	89.32[618.0,66
6	813821244006	249006	AMIRTA LAKSHMI. M E	78	50	50	69	50	38	335	55.83	85.28[618.0,91
7	813821244007	249007	ANIRUTH RAGAVENDRA. S	80	70	50	76	66	A	342	57.00	89.00[618.0,68
8	813821244008	249008	ARIKARAN. K	50	44	30	57	58	40	279	46.50	79.77[618.0,12
9	813821244009	249009	ARULNITHI. A	32	20	4	40	50	42	188	31.33	80.74[618.0,11
10	813821244010	249010	ARUN. J	58	58	50	67	64	36	333	55.50	89.16[618.0,67
11	813821244011	249011	ATHISH VARSHEN. N	74	62	57	78	56	56	383	63.83	81.55[618.0,11
12	813821244012	249012	AYSHWARYA. S	60	70	66	68	64	36	364	60.67	94.82[618.0,32
13	813821244013	249013	BHARATH KANNAN. R	46	50	31	53	50	A	230	38.33	83.17[618.0,10
14	813821244014	249014	BOWTHRIYA. S	62	A	42	A	64	12	180	30.00	83.98[618.0,99
15	813821244015	249015	BRINDHA. M	70	84	64	69	76	28	391	65.17	94.66[618.0,33
16	813821244016	249016	CHRISHA MAGDALIN. M	80	82	71	70	76	30	409	68.17	94.82[618.0,32
17	813821244017	249017	DEEPIKA. S	60	62	60	77	64	22	345	57.50	95.79[618.0,26
18	813821244018	249018	DHARANI. S	54	60	50	65	58	30	317	52.83	93.20[618.0,42
19	813821244019	249019	FARGANA BEGUM. A	62	52	62	77	66	44	363	60.50	98.54[618.0,9.
20	813821244020	249020	GIRIVASAN A B	40	24	12	50	A	56	182	30.33	87.06[618.0,80
21	813821244021	249021	GOKUL RAJ. V	54	58	39	55	54	18	278	46.33	85.92[618.0,87
22	813821244022	249022	GOWSALYA. P	68	56	52	69	66	32	343	57.17	88.19[618.0,73
23	813821244023	249023	GURU RATCHITHA. S	80	68	40	76	66	34	364	60.67	94.66[618.0,33
24	813821244026	249024	HARI PRASATH. M	44	40	17	66	36	30	233	38.83	83.82[618.0,10
25	813821244024	249025	HARICHARAN. T	26	14	0	24	16	30	110	18.33	74.43[618.0,15
26	813821244025	249026	HARINI. R S	56	62	38	64	56	32	308	51.33	89.00[618.0,68
27	813821244027	249027	HARSHINI. S	70	82	57	75	70	A	354	59.00	94.50[618.0,34
28	813821244028	249028	ISHANIKA. V	66	62	64	68	54	36	350	58.33	89.16[618.0,67
29	813821244029	249029	JAIAKASH. K	60	70	52	76	50	40	348	58.00	89.32[618.0,66
30	813821244030	249030	JANANI. K M	64	62	52	64	76	46	364	60.67	90.45[618.0,59
31	813821244031	249031	KIRUTHIKA SHREE. B	72	60	56	63	64	32	347	57.83	93.20[618.0,42
32	813821244032	249032	MADHINI. K	78	50	50	74	62	48	362	60.33	87.70[618.0,76
33	813821244033	249033	MANIKANDAN. S	52	52	56	58	56	62	336	56.00	98.06[618.0,12
34	813821244034	249034	MOHAMED ASAR. N	8	56	38	63	56	48	269	44.83	77.99[618.0,13
35	813821244035	249035	MOHAMED SAMEER. S	10	14	12	50	44	48	178	29.67	85.28[618.0,91

36	813821244036	249036	MOHAMED SHAFIK. N	50	56	52	79	74	58	369	61.50	94.66[618.0,33
37	813821244037	249037	MOHAMMED YASEEN. S	42	46	50	58	50	74	320	53.33	80.26[618.0,12
38	813821244038	249038	MONISHA. N	78	A	54	78	64	56	330	55.00	86.25[618.0,85
39	813821244039	249039	MUKILAN. K B	4	4	6	38	A	30	82	13.67	73.46[618.0,16
40	813821244040	249040	MURUGANANDAM. P	60	52	44	70	54	A	280	46.67	95.63[618.0,27
41	813821244041	249041	NARENDRAN. S P	82	76	80	81	70	64	453	75.50	94.82[618.0,32
42	813821244042	249042	NAVEEN RAJ. K	16	32	8	26	40	68	190	31.67	75.73[618.0,15
43	813821244043	249043	NEVIN RICHARD AUSTIN. S	52	62	38	28	50	A	230	38.33	83.98[618.0,99
44	813821244044	249044	PIERRS. I K	82	76	54	70	68	70	420	70.00	90.45[618.0,59
45	813821244045	249045	PRATHIKSHAA. S S	84	74	58	82	80	68	446	74.33	90.61[618.0,58
46	813821244046	249046	PRINCE GAUTHAM. V	28	34	4	40	14	36	156	26.00	81.55[618.0,11
47	813821244047	249047	RAHUL. R	14	24	12	33	28	18	129	21.50	86.41[618.0,84
48	813821244048	249048	RAJESHWARAN. M	A	24	42	56	44	52	218	36.33	84.79[618.0,94
49	813821244049	249049	RAMCHIDAMBAR. BA	16	38	11	63	20	48	196	32.67	83.82[618.0,10
50	813821244050	249050	REETHIKA. S	76	66	66	81	76	32	397	66.17	89.64[618.0,64
51	813821244051	249051	REVAN JOSH. J	60	52	30	59	70	44	315	52.50	89.64[618.0,64
52	813821244052	249052	SAKTHIKEERTHIKA. T	74	72	67	75	58	42	388	64.67	92.88[618.0,44
53	813821244053	249053	SHAM. S	70	54	32	53	50	50	309	51.50	82.52[618.0,10
54	813821244054	249054	SHOBANA DEVI. S	72	58	78	70	68	26	372	62.00	91.91[618.0,50
55	813821244055	249055	SINDUJA. T	82	72	64	66	64	20	368	61.33	89.16[618.0,67
56	813821244056	249056	SOORYA. S	86	24	50	53	58	48	319	53.17	83.01[618.0,10
57	813821244057	249057	SRIRAM. G K	84	50	42	58	42	50	326	54.33	87.38[618.0,78
58	813821244058	249058	SUDARVIZHI. L	92	90	86	86	68	66	488	81.33	91.42[618.0,53
59	813821244059	249059	SURIYANARAYANAN. G	56	54	38	50	62	42	302	50.33	100.00[618.0,0
60	813821244060	249060	THESIGAN. S	52	60	52	62	70	22	318	53.00	89.81[618.0,63
61	813821244061	249061	VISHWA. M	32	26	0	52	50	72	232	38.67	78.96[618.0,13
62	813821244062	249062	YUVADHARSHINI. V	34	A	50	75	64	16	239	39.83	85.28[618.0,91
63	813821244302	249063	KARTHICK. K	52	40	22	68	64	A	246	41.00	88.83[618.0,69
64	813821244301	249064	AARON. J	64	54	30	62	54	A	264	44.00	88.67[618.0,70

Performance Analysis

Total Appeared	64	64	64	64	64	64
Total Passed	47	44	34	56	53	16
Total Failed(Fail + Absent)	17	20	30	8	11	48
Above 80	10	5	2	5	1	0
Between 50-59	11	19	20	15	23	8
Pass%	**73**	**69**	**53**	**88**	**83**	**25**

Subcode	Title	Faculty Name
CCS335	Cloud Computing	Dr.S.Venkatasubramanian
CCS367	Storage Technologies	Mr.R.Mohan Kumar
CS3691	EMBEDDED SYSTEMS AND IOT	Ms.B.Divya

CW3501	FUNDAMENTALS OF MANAGEMENT	Mr.P.V.Rajesh
CW3551	DATA AND INFORMATION SECURITY	Ms.A.Thenmozhi
TP	TRAINING AND PLACEMENT	Ms.A.Thenmozhi

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:3 Section:A: Assessment Test -2 Sem Period:23-24ODD

S.no	Regno	Batchno	Name	AD3351	AD3491	CS3351	CS3391	CW3301	MA3354	Total	AVG	Att%
1	813822244001	259001	AADHITYAA. S A	56	50	36	36	68	56	302	50.33	100.00[640.0,
2	813822244002	259002	ABISHEK. S	76	56	28	38	60	76	334	55.67	97.34[640.0,1
3	813822244003	259003	AKSHAYAGIRI. K	64	68	46	26	50	54	308	51.33	94.69[640.0,3
4	813822244004	259004	ARUNA. B	66	62	50	38	64	60	340	56.67	93.28[640.0,4
5	813822244005	259005	ASWATHI. M	50	52	50	34	66	62	314	52.33	94.69[640.0,3
6	813822244007	259006	BAGYALAKSHMI. G	56	60	30	40	52	54	292	48.67	88.59[640.0,7
7	813822244008	259007	BHAVADHARINI. D	98	74	74	98	70	94	508	84.67	100.00[640.0,
8	813822244009	259008	DAVIDSON JOSHUA. R	74	76	54	32	54	50	340	56.67	98.75[640.0,8
9	813822244010	259009	DEEPTI. S	98	80	78	74	74	94	498	83.00	98.12[640.0,1
10	813822244011	259010	DEVANANTHAM. A	80	50	50	12	64	56	312	52.00	95.62[640.0,2
11	813822244012	259011	DHAANUSH. C	72	66	52	12	64	52	318	53.00	97.50[640.0,1
12	813822244013	259012	DHIVYA. J	98	86	86	88	88	94	540	90.00	96.88[640.0,2
13	813822244014	259013	DINESH. T A	88	72	58	56	58	60	392	65.33	91.09[640.0,5
14	813822244015	259014	GURU PRASATH. M	76	68	50	50	54	70	368	61.33	97.19[640.0,1
15	813822244016	259015	HARINI. B	86	64	64	56	70	86	426	71.00	98.59[640.0,9
16	813822244017	259016	HARSAVARDAN. B	76	70	62	50	66	68	392	65.33	82.97[640.0,1
17	813822244018	259017	HEM NITHISH. M	70	68	52	98	54	60	402	67.00	98.28[640.0,1
18	813822244019	259018	INDUJA. R	84	64	50	36	62	62	358	59.67	92.50[640.0,4
19	813822244021	259020	JANUPRIYA. S S	92	64	66	54	68	94	438	73.00	92.97[640.0,4
20	813822244023	259021	KARAN RAJ. P	28	22	16	4	6	50	126	21.00	89.22[640.0,6
21	813822244024	259022	KARTHIK. P	84	92	70	88	64	90	488	81.33	96.56[640.0,2
22	813822244025	259023	KAVIYARASAN. S	54	46	58	88	50	66	362	60.33	92.03[640.0,5
23	813822244026	259024	KAVYA SRI. T	80	96	58	90	78	66	468	78.00	94.38[640.0,3
24	813822244027	259025	KETHZIA. E	76	80	62	74	74	82	448	74.67	94.53[640.0,3
25	813822244028	259026	KRISHNA KUMAR. S	18	28	6	6	26	28	112	18.67	94.84[640.0,3
26	813822244029	259027	MADHESH. V	64	54	24	58	34	60	294	49.00	90.47[640.0,6
27	813822244030	259028	MADHUSUDHANAN. S	78	64	54	70	54	70	390	65.00	93.44[640.0,4
28	813822244031	259029	MAHALAKSHMI. M	54	68	36	22	58	66	304	50.67	96.56[640.0,2
29	813822244032	259030	MAHALAKSHMI. S	84	54	50	52	54	58	352	58.67	92.03[640.0,5
30	813822244033	259031	MAHATI. S	88	84	78	70	64	94	478	79.67	91.25[640.0,5
31	813822244034	259032	MERLIN. M	84	84	68	84	70	78	468	78.00	99.84[640.0,1
32	813822244035	259033	MOHAMED ISHAQ. M	12	A	10	A	2	30	54	9.00	79.06[640.0,1
33	813822244036	259034	MYTHREYAN. M	76	50	26	10	34	52	248	41.33	97.19[640.0,1
34	813822244038	259036	NAVEEN KANNAN. A C	74	66	44	86	64	62	396	66.00	94.06[640.0,3
35	813822244039	259037	NAVINESH. K	80	82	56	58	66	72	414	69.00	93.75[640.0,4
36	813822244040	259038	PRAGATHEESH. A	64	58	64	84	56	94	420	70.00	96.25[640.0,2
37	813822244041	259039	PRASANNA. M E	14	A	A	A	36	A	50	8.33	68.91[640.0,1
38	813822244042	259040	RAGHUPATHY. M	66	84	50	64	70	78	412	68.67	95.31[640.0,3
39	813822244043	259041	RAKESH. R	51	58	32	76	50	50	317	52.83	87.66[640.0,7

40	813822244044	259042	ROHIT SURYA. L K	26	30	24	6	40	18	144	24.00	82.81[640.0,1
41	813822244045	259043	SANJAI. R	52	56	56	50	56	52	322	53.67	85.47[640.0,9
42	813822244046	259044	SANJAY. I	20	52	24	22	20	14	152	25.33	94.69[640.0,3
43	813822244047	259045	SHYAMSUNDAR. V	40	50	58	34	56	44	282	47.00	88.28[640.0,7
44	813822244048	259046	SIVAMANIKANDAN. R	44	46	42	22	40	32	226	37.67	88.75[640.0,7
45	813822244049	259047	STEPHY BLESS. S	98	90	78	A	78	98	442	73.67	91.88[640.0,5
46	813822244050	259048	SUWETHA. A	94	74	56	72	74	78	448	74.67	97.50[640.0,1
47	813822244051	259049	TANIA MICHELLE. A	72	52	68	58	66	60	376	62.67	89.53[640.0,6
48	813822244052	259050	TEDDY SAMSON. F	64	70	50	50	62	80	376	62.67	88.91[640.0,7
49	813822244053	259051	THARUN. S	66	74	68	A	52	78	338	56.33	92.34[640.0,4
50	813822244054	259052	UDAY. R	78	70	82	88	60	54	432	72.00	92.34[640.0,4
51	813822244055	259053	VASANTH. V	60	58	62	74	54	68	376	62.67	94.69[640.0,3
52	813822244056	259054	VENKATESAN. L	68	54	64	92	52	64	394	65.67	95.62[640.0,2
53	813822244057	259055	VIKRAM. M	46	66	52	40	50	66	320	53.33	93.12[640.0,4
54	813822244058	259056	YAGALE. E	88	50	68	62	60	60	388	64.67	97.50[640.0,1
55	813822244006	259057	AVINASH. M	24	18	28	8	26	34	138	23.00	86.72[640.0,8
56	813822244022	259058	JENCY FEDILIA. C	62	52	62	38	68	54	336	56.00	93.75[640.0,4

Performance Analysis

Total Appeared	56	56	56	56	56	56
Total Passed	46	48	39	31	46	48
Total Failed(Fail + Absent)	10	8	17	25	10	8
Above 80	17	10	2	11	1	11
Between 50-59	7	17	20	11	18	13
Pass%	**82**	**86**	**70**	**55**	**82**	**86**

Subcode	Title	Faculty Name
AD3351	DESIGN AND ANALYSIS OF ALGORITHMS	Ms.P.Kaviya
AD3491	FUNDAMENTALS OF DATA SCIENCE AND ANALYTICS	Mr.R.Mohan Kumar
CS3351	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION	Ms.A.Mohanadevi
CS3391	OBJECT ORIENTED PROGRAMMING	Ms.A.Thenmozhi
CW3301	FUNDAMENTALS OF ECONOMICS	Mr.S.Saravanan
MA3354	DISCRETE MATHEMATICS	Dr.S.Sivamani

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:5 Section:A: Assessment Test -2 Sem Period:23-24ODD

S.no	Regno	Batchno	Name	CCS335	CCS367	CS3691	CW3501	CW3551	TP	Total	AVG	Att%
1	813821244001	249001	AAKASH. A	30	56	34	61	52	26	259	43.17	97.41[618.0,16
2	813821244002	249002	AARTHY. T	88	80	82	81	88	26	445	74.17	94.82[618.0,32
3	813821244003	249003	ABDUR RAHMAN ASHIK. A	8	A	22	51	16	14	111	18.50	89.00[618.0,68
4	813821244004	249004	ABINAYA. M	78	62	66	64	74	46	390	65.00	95.15[618.0,30
5	813821244005	249005	ADHESH. J	A	54	50	63	20	78	265	44.17	89.32[618.0,66
6	813821244006	249006	AMIRTA LAKSHMI. M E	44	52	50	55	0	34	235	39.17	85.28[618.0,91
7	813821244007	249007	ANIRUTH RAGAVENDRA. S	84	80	56	82	64	18	384	64.00	89.00[618.0,68
8	813821244008	249008	ARIKARAN. K	30	50	12	50	20	28	190	31.67	79.77[618.0,12
9	813821244009	249009	ARULNITHI. A	12	26	76	50	20	30	214	35.67	80.74[618.0,11
10	813821244010	249010	ARUN. J	50	70	70	70	64	44	368	61.33	89.16[618.0,67
11	813821244011	249011	ATHISH VARSHEN. N	30	54	78	68	36	30	296	49.33	81.55[618.0,11
12	813821244012	249012	AYSHWARYA. S	36	56	72	68	68	24	324	54.00	94.82[618.0,32
13	813821244013	249013	BHARATH KANNAN. R	40	42	38	55	18	32	225	37.50	83.17[618.0,10
14	813821244014	249014	BOWTHRIYA. S	50	68	50	59	70	46	343	57.17	83.98[618.0,99
15	813821244015	249015	BRINDHA. M	62	82	86	84	68	42	424	70.67	94.66[618.0,33
16	813821244016	249016	CHRISHA MAGDALIN. M	82	78	80	80	68	38	426	71.00	94.82[618.0,32
17	813821244017	249017	DEEPIKA. S	54	64	68	74	70	28	358	59.67	95.79[618.0,26
18	813821244018	249018	DHARANI. S	26	66	52	63	A	26	233	38.83	93.20[618.0,42
19	813821244019	249019	FARGANA BEGUM. A	42	56	44	65	54	46	307	51.17	98.54[618.0,9.
20	813821244020	249020	GIRIVASAN A B	0	14	34	42	18	22	130	21.67	87.06[618.0,80
21	813821244021	249021	GOKUL RAJ. V	28	8	54	59	30	A	179	29.83	85.92[618.0,87
22	813821244022	249022	GOWSALYA. P	78	A	62	70	54	18	282	47.00	88.19[618.0,73
23	813821244023	249023	GURU RATCHITHA. S	76	68	64	74	50	26	358	59.67	94.66[618.0,33
24	813821244026	249024	HARI PRASATH. M	16	40	60	59	50	26	251	41.83	83.82[618.0,10
25	813821244024	249025	HARICHARAN. T	4	6	6	34	8	58	116	19.33	74.43[618.0,15
26	813821244025	249026	HARINI. R S	60	64	54	60	50	26	314	52.33	89.00[618.0,68
27	813821244027	249027	HARSHINI. S	68	64	78	79	64	24	377	62.83	94.50[618.0,34
28	813821244028	249028	ISHANIKA. V	72	36	74	60	54	62	358	59.67	89.16[618.0,67
29	813821244029	249029	JAIAKASH. K	68	66	64	78	A	42	318	53.00	89.32[618.0,66
30	813821244030	249030	JANANI. K M	54	36	A	69	A	34	193	32.17	90.45[618.0,59
31	813821244031	249031	KIRUTHIKA SHREE. B	76	58	64	58	50	34	340	56.67	93.20[618.0,42
32	813821244032	249032	MADHINI. K	62	58	52	69	50	28	319	53.17	87.70[618.0,76
33	813821244033	249033	MANIKANDAN. S	50	54	66	52	50	48	320	53.33	98.06[618.0,12
34	813821244034	249034	MOHAMED ASAR. N	4	12	40	54	34	62	206	34.33	77.99[618.0,13
35	813821244035	249035	MOHAMED SAMEER. S	0	18	2	50	4	28	102	17.00	85.28[618.0,91

36	813821244036	249036	MOHAMED SHAFIK. N	50	50	64	67	50	54	335	55.83	94.66[618.0,33
37	813821244037	249037	MOHAMMED YASEEN. S	54	20	52	64	50	24	264	44.00	80.26[618.0,12
38	813821244038	249038	MONISHA. N	60	68	44	52	50	46	320	53.33	86.25[618.0,85
39	813821244039	249039	MUKILAN. K B	0	20	2	14	6	A	42	7.00	73.46[618.0,16
40	813821244040	249040	MURUGANANDAM. P	12	18	28	69	50	34	211	35.17	95.63[618.0,27
41	813821244041	249041	NARENDRAN. S P	84	68	78	72	82	54	438	73.00	94.82[618.0,32
42	813821244042	249042	NAVEEN RAJ. K	0	22	0	22	8	76	128	21.33	75.73[618.0,15
43	813821244043	249043	NEVIN RICHARD AUSTIN. S	26	44	20	54	50	6	200	33.33	83.98[618.0,99
44	813821244044	249044	PIERRS. I K	74	84	86	83	74	78	479	79.83	90.45[618.0,59
45	813821244045	249045	PRATHIKSHAA. S S	80	58	80	74	66	52	410	68.33	90.61[618.0,58
46	813821244046	249046	PRINCE GAUTHAM. V	30	4	6	65	14	26	145	24.17	81.55[618.0,11
47	813821244047	249047	RAHUL. R	0	24	22	54	22	24	146	24.33	86.41[618.0,84
48	813821244048	249048	RAJESHWARAN. M	54	38	54	59	22	24	251	41.83	84.79[618.0,94
49	813821244049	249049	RAMCHIDAMBAR. BA	54	40	68	60	16	52	290	48.33	83.82[618.0,10
50	813821244050	249050	REETHIKA. S	74	50	74	A	56	26	280	46.67	89.64[618.0,64
51	813821244051	249051	REVAN JOSH. J	40	34	62	75	34	28	273	45.50	89.64[618.0,64
52	813821244052	249052	SAKTHIKEERTHIKA. T	78	76	64	74	72	40	404	67.33	92.88[618.0,44
53	813821244053	249053	SHAM. S	56	52	50	61	58	44	321	53.50	82.52[618.0,10
54	813821244054	249054	SHOBANA DEVI. S	74	54	66	60	62	42	358	59.67	91.91[618.0,50
55	813821244055	249055	SINDUJA. T	76	70	76	67	66	30	385	64.17	89.16[618.0,67
56	813821244056	249056	SOORYA. S	62	50	68	60	24	26	290	48.33	83.01[618.0,10
57	813821244057	249057	SRIRAM. G K	62	44	56	62	50	28	302	50.33	87.38[618.0,78
58	813821244058	249058	SUDARVIZHI. L	92	78	86	84	90	52	482	80.33	91.42[618.0,53
59	813821244059	249059	SURIYANARAYANAN. G	30	38	40	50	14	86	258	43.00	100.00[618.0,0
60	813821244060	249060	THESIGAN. S	32	34	52	63	50	26	257	42.83	89.81[618.0,63
61	813821244061	249061	VISHWA. M	6	30	8	52	20	28	144	24.00	78.96[618.0,13
62	813821244062	249062	YUVADHARSHINI. V	26	52	32	68	34	26	238	39.67	85.28[618.0,91
63	813821244302	249063	KARTHICK. K	50	42	58	64	34	60	308	51.33	88.83[618.0,69
64	813821244301	249064	AARON. J	A	64	A	72	A	52	188	31.33	88.67[618.0,70

Performance Analysis

Total Appeared	64	64	64	64	64	64
Total Passed	35	37	43	59	36	14
Total Failed(Fail + Absent)	29	27	21	5	28	50
Above 80	6	4	6	6	3	1
Between 50-59	11	17	14	18	19	7
Pass%	**55**	**58**	**67**	**92**	**56**	**22**

Subcode	Title	Faculty Name
CCS335	Cloud Computing	Dr.S.Venkatasubramanian
CCS367	Storage Technologies	Mr.R.Mohan Kumar
CS3691	EMBEDDED SYSTEMS AND IOT	Ms.B.Divya

CW3501	FUNDAMENTALS OF MANAGEMENT	Mr.P.V.Rajesh
CW3551	DATA AND INFORMATION SECURITY	Ms.A.Thenmozhi
TP	TRAINING AND PLACEMENT	Ms.A.Thenmozhi

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:3 Section:A: Assessment Test -3 Sem Period:23-24ODD

S.no	Regno	Batchno	Name	AD3351	AD3491	CS3351	CS3391	CW3301	MA3354	Total	AVG	Att%
1	813822244001	259001	AADHITYAA. S A	80	50	26	28	50	34	268	44.67	100.00[640.0,(
2	813822244002	259002	ABISHEK. S	64	18	42	38	42	68	272	45.33	97.34[640.0,1
3	813822244003	259003	AKSHAYAGIRI. K	40	22	16	22	36	54	190	31.67	94.69[640.0,3
4	813822244004	259004	ARUNA. B	88	64	28	66	58	68	372	62.00	93.28[640.0,4
5	813822244005	259005	ASWATHI. M	76	50	34	A	58	66	284	47.33	94.69[640.0,3
6	813822244007	259006	BAGYALAKSHMI. G	44	50	24	32	44	52	246	41.00	88.59[640.0,7
7	813822244008	259007	BHAVADHARINI. D	88	82	56	86	80	92	484	80.67	100.00[640.0,(
8	813822244009	259008	DAVIDSON JOSHUA. R	62	42	22	40	50	46	262	43.67	98.75[640.0,8
9	813822244010	259009	DEEPTI. S	82	72	66	66	64	86	436	72.67	98.12[640.0,1
10	813822244011	259010	DEVANANTHAM. A	76	42	40	34	58	52	302	50.33	95.62[640.0,2
11	813822244012	259011	DHAANUSH. C	68	56	24	54	50	56	308	51.33	97.50[640.0,1
12	813822244013	259012	DHIVYA. J	90	78	60	80	90	82	480	80.00	96.88[640.0,2
13	813822244014	259013	DINESH. T A	50	54	44	34	40	58	280	46.67	91.09[640.0,5
14	813822244015	259014	GURU PRASATH. M	50	68	38	30	42	58	286	47.67	97.19[640.0,1
15	813822244016	259015	HARINI. B	78	66	50	60	72	66	392	65.33	98.59[640.0,9
16	813822244017	259016	HARSAVARDAN. B	40	52	44	24	20	64	244	40.67	82.97[640.0,1
17	813822244018	259017	HEM NITHISH. M	58	60	40	98	62	38	356	59.33	98.28[640.0,1
18	813822244019	259018	INDUJA. R	56	38	30	50	66	60	300	50.00	92.50[640.0,4
19	813822244021	259020	JANUPRIYA. S S	52	68	42	50	54	68	334	55.67	92.97[640.0,4
20	813822244023	259021	KARAN RAJ. P	30	24	4	16	8	36	118	19.67	89.22[640.0,6
21	813822244024	259022	KARTHIK. P	72	72	56	70	58	84	412	68.67	96.56[640.0,2
22	813822244025	259023	KAVIYARASAN. S	62	A	A	A	50	A	112	18.67	92.03[640.0,5
23	813822244026	259024	KAVYA SRI. T	84	84	64	A	72	A	304	50.67	94.38[640.0,3
24	813822244027	259025	KETHZIA. E	56	58	58	72	58	78	380	63.33	94.53[640.0,3
25	813822244028	259026	KRISHNA KUMAR. S	20	14	36	4	24	40	138	23.00	94.84[640.0,3
26	813822244029	259027	MADHESH. V	24	46	A	12	38	42	162	27.00	90.47[640.0,6
27	813822244030	259028	MADHUSUDHANAN. S	68	62	44	A	58	56	288	48.00	93.44[640.0,4
28	813822244031	259029	MAHALAKSHMI. M	62	52	14	28	58	72	286	47.67	96.56[640.0,2
29	813822244032	259030	MAHALAKSHMI. S	68	36	36	52	52	62	306	51.00	92.03[640.0,5
30	813822244033	259031	MAHATI. S	84	78	64	76	50	70	422	70.33	91.25[640.0,5
31	813822244034	259032	MERLIN. M	64	86	58	74	80	88	450	75.00	99.84[640.0,1
32	813822244035	259033	MOHAMED ISHAQ. M	18	24	18	24	50	12	146	24.33	79.06[640.0,1
33	813822244036	259034	MYTHREYAN. M	28	50	36	50	26	46	236	39.33	97.19[640.0,1
34	813822244038	259036	NAVEEN KANNAN. A C	88	74	46	78	70	34	390	65.00	94.06[640.0,3
35	813822244039	259037	NAVINESH. K	68	78	36	56	70	66	374	62.33	93.75[640.0,4
36	813822244040	259038	PRAGATHEESH. A	40	56	50	62	58	88	354	59.00	96.25[640.0,2
37	813822244041	259039	PRASANNA. M E	36	14	8	24	36	4	122	20.33	68.91[640.0,1
38	813822244042	259040	RAGHUPATHY. M	50	76	38	38	78	40	320	53.33	95.31[640.0,3
39	813822244043	259041	RAKESH. R	32	30	38	50	44	32	226	37.67	87.66[640.0,7

40	813822244044	259042	ROHIT SURYA. L K	16	26	14	34	22	50	162	27.00	82.81[640.0,1
41	813822244045	259043	SANJAI. R	A	A	24	14	32	A	70	11.67	85.47[640.0,9
42	813822244046	259044	SANJAY. I	44	24	12	36	30	56	202	33.67	94.69[640.0,3
43	813822244047	259045	SHYAMSUNDAR. V	46	46	36	50	60	46	284	47.33	88.28[640.0,7
44	813822244048	259046	SIVAMANIKANDAN. R	4	30	28	36	22	42	162	27.00	88.75[640.0,7
45	813822244049	259047	STEPHY BLESS. S	74	60	66	60	68	96	424	70.67	91.88[640.0,5
46	813822244050	259048	SUWETHA. A	84	70	60	54	88	28	384	64.00	97.50[640.0,1
47	813822244051	259049	TANIA MICHELLE. A	70	42	32	50	66	54	314	52.33	89.53[640.0,6
48	813822244052	259050	TEDDY SAMSON. F	A	50	44	A	74	52	220	36.67	88.91[640.0,7
49	813822244053	259051	THARUN. S	80	58	28	76	56	56	354	59.00	92.34[640.0,4
50	813822244054	259052	UDAY. R	74	56	66	78	70	80	424	70.67	92.34[640.0,4
51	813822244055	259053	VASANTH. V	70	34	50	70	58	72	354	59.00	94.69[640.0,3
52	813822244056	259054	VENKATESAN. L	80	50	58	56	58	58	360	60.00	95.62[640.0,2
53	813822244057	259055	VIKRAM. M	68	40	52	42	56	52	310	51.67	93.12[640.0,4
54	813822244058	259056	YAGALE. E	68	54	54	74	42	42	334	55.67	97.50[640.0,1
55	813822244006	259057	AVINASH. M	32	14	26	26	30	50	178	29.67	86.72[640.0,8
56	813822244022	259058	JENCY FEDILIA. C	52	A	50	34	44	50	230	38.33	93.75[640.0,4

Performance Analysis

Total Appeared	56	56	56	56	56	56
Total Passed	38	33	18	28	37	37
Total Failed(Fail + Absent)	18	23	38	28	19	19
Above 80	11	3	0	3	4	8
Between 50-59	8	15	11	11	20	16
Pass%	**68**	**59**	**32**	**50**	**66**	**66**

Subcode	Title	Faculty Name
AD3351	DESIGN AND ANALYSIS OF ALGORITHMS	Ms.P.Kaviya
AD3491	FUNDAMENTALS OF DATA SCIENCE AND ANALYTICS	Mr.R.Mohan Kumar
CS3351	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION	Ms.A.Mohanadevi
CS3391	OBJECT ORIENTED PROGRAMMING	Ms.A.Thenmozhi
CW3301	FUNDAMENTALS OF ECONOMICS	Mr.S.Saravanan
MA3354	DISCRETE MATHEMATICS	Dr.S.Sivamani

RANK HOLDERS & SUBJECT TOPPERS

Classwise Internal Assessment Mark Report

Class:CSBS Semester:5 Section:A: Assessment Test -3 Sem Period:23-24ODD

S.no	Regno	Batchno	Name	CCS335	CCS367	CS3691	CW3501	CW3551	Total	AVG	Att%
1	813821244001	249001	AAKASH. A	55	50	50	66	50	271	54.20	97.41[618.0,16
2	813821244002	249002	AARTHY. T	65	68	80	74	68	355	71.00	94.82[618.0,32
3	813821244003	249003	ABDUR RAHMAN ASHIK. A	14	50	50	40	22	176	35.20	89.00[618.0,68
4	813821244004	249004	ABINAYA. M	68	50	72	66	38	294	58.80	95.15[618.0,30
5	813821244005	249005	ADHESH. J	64	68	26	63	44	265	53.00	89.32[618.0,66
6	813821244006	249006	AMIRTA LAKSHMI. M E	A	58	A	A	26	84	16.80	85.28[618.0,91
7	813821244007	249007	ANIRUTH RAGAVENDRA. S	87	88	A	69	66	310	62.00	89.00[618.0,68
8	813821244008	249008	ARIKARAN. K	28	20	26	41	16	131	26.20	79.77[618.0,12
9	813821244009	249009	ARULNITHI. A	10	8	16	30	24	88	17.60	80.74[618.0,11
10	813821244010	249010	ARUN. J	54	26	24	44	4	152	30.40	89.16[618.0,67
11	813821244011	249011	ATHISH VARSHEN. N	45	74	72	71	48	310	62.00	81.55[618.0,11
12	813821244012	249012	AYSHWARYA. S	82	50	84	58	40	314	62.80	94.82[618.0,32
13	813821244013	249013	BHARATH KANNAN. R	45	44	72	42	14	217	43.40	83.17[618.0,10
14	813821244014	249014	BOWTHRIYA. S	70	62	34	68	44	278	55.60	83.98[618.0,99
15	813821244015	249015	BRINDHA. M	72	82	84	72	72	382	76.40	94.66[618.0,33
16	813821244016	249016	CHRISHA MAGDALIN. M	73	76	84	62	84	379	75.80	94.82[618.0,32
17	813821244017	249017	DEEPIKA. S	63	60	64	62	52	301	60.20	95.79[618.0,26
18	813821244018	249018	DHARANI. S	61	62	54	52	26	255	51.00	93.20[618.0,42
19	813821244019	249019	FARGANA BEGUM. A	62	60	8	64	32	226	45.20	98.54[618.0,9.0
20	813821244020	249020	GIRIVASAN A B	36	20	36	32	10	134	26.80	87.06[618.0,80
21	813821244021	249021	GOKUL RAJ. V	55	62	20	18	8	163	32.60	85.92[618.0,87
22	813821244022	249022	GOWSALYA. P	70	50	78	60	A	258	51.60	88.19[618.0,73
23	813821244023	249023	GURU RATCHITHA. S	70	64	64	66	22	286	57.20	94.66[618.0,33
24	813821244026	249024	HARI PRASATH. M	32	50	60	46	46	234	46.80	83.82[618.0,10
25	813821244024	249025	HARICHARAN. T	0	8	8	20	4	40	8.00	74.43[618.0,15
26	813821244025	249026	HARINI. R S	66	42	58	A	A	166	33.20	89.00[618.0,68
27	813821244027	249027	HARSHINI. S	63	62	72	72	48	317	63.40	94.50[618.0,34
28	813821244028	249028	ISHANIKA. V	60	72	58	62	34	286	57.20	89.16[618.0,67
29	813821244029	249029	JAIAKASH. K	46	56	76	60	16	254	50.80	89.32[618.0,66
30	813821244030	249030	JANANI. K M	52	54	30	54	A	190	38.00	90.45[618.0,59
31	813821244031	249031	KIRUTHIKA SHREE. B	71	58	58	62	44	293	58.60	93.20[618.0,42
32	813821244032	249032	MADHINI. K	55	56	50	62	28	251	50.20	87.70[618.0,76
33	813821244033	249033	MANIKANDAN. S	57	42	66	34	38	237	47.40	98.06[618.0,12
34	813821244034	249034	MOHAMED ASAR. N	32	32	20	30	10	124	24.80	77.99[618.0,13

35	813821244035	249035	MOHAMED SAMEER. S	18	12	12	16	12	70	14.00	85.28[618.0,91
36	813821244036	249036	MOHAMED SHAFIK. N	54	54	76	68	38	290	58.00	94.66[618.0,33
37	813821244037	249037	MOHAMMED YASEEN. S	56	14	52	24	34	180	36.00	80.26[618.0,12
38	813821244038	249038	MONISHA. N	61	52	64	70	4	251	50.20	86.25[618.0,85
39	813821244039	249039	MUKILAN. K B	34	44	20	38	12	148	29.60	73.46[618.0,16
40	813821244040	249040	MURUGANANDAM. P	60	22	62	56	6	206	41.20	95.63[618.0,27
41	813821244041	249041	NARENDRAN. S P	48	80	84	62	74	348	69.60	94.82[618.0,32
42	813821244042	249042	NAVEEN RAJ. K	26	18	16	18	8	86	17.20	75.73[618.0,15
43	813821244043	249043	NEVIN RICHARD AUSTIN. S	60	16	68	42	10	196	39.20	83.98[618.0,99
44	813821244044	249044	PIERRS. I K	58	14	92	44	36	244	48.80	90.45[618.0,59
45	813821244045	249045	PRATHIKSHAA. S S	59	80	88	70	66	363	72.60	90.61[618.0,58
46	813821244046	249046	PRINCE GAUTHAM. V	4	38	56	45	20	163	32.60	81.55[618.0,11
47	813821244047	249047	RAHUL. R	0	24	4	46	24	98	19.60	86.41[618.0,84
48	813821244048	249048	RAJESHWARAN. M	52	54	32	46	24	208	41.60	84.79[618.0,94
49	813821244049	249049	RAMCHIDAMBAR. BA	52	66	82	58	54	312	62.40	83.82[618.0,10
50	813821244050	249050	REETHIKA. S	59	74	38	70	40	281	56.20	89.64[618.0,64
51	813821244051	249051	REVAN JOSH. J	54	26	26	58	42	206	41.20	89.64[618.0,64
52	813821244052	249052	SAKTHIKEERTHIKA. T	74	68	80	66	58	346	69.20	92.88[618.0,44
53	813821244053	249053	SHAM. S	54	42	60	42	2	200	40.00	82.52[618.0,10
54	813821244054	249054	SHOBANA DEVI. S	62	70	84	72	34	322	64.40	91.91[618.0,50
55	813821244055	249055	SINDUJA. T	68	64	74	66	52	324	64.80	89.16[618.0,67
56	813821244056	249056	SOORYA. S	60	14	50	10	10	144	28.80	83.01[618.0,10
57	813821244057	249057	SRIRAM. G K	55	50	50	54	30	239	47.80	87.38[618.0,78
58	813821244058	249058	SUDARVIZHI. L	75	88	92	80	80	415	83.00	91.42[618.0,53
59	813821244059	249059	SURIYANARAYANAN. G	50	50	52	50	22	224	44.80	100.00[618.0,0
60	813821244060	249060	THESIGAN. S	48	44	56	58	50	256	51.20	89.81[618.0,63
61	813821244061	249061	VISHWA. M	2	16	10	30	6	64	12.80	78.96[618.0,13
62	813821244062	249062	YUVADHARSHINI. V	56	50	50	62	18	236	47.20	85.28[618.0,91
63	813821244302	249063	KARTHICK. K	51	58	44	54	28	235	47.00	88.83[618.0,69
64	813821244301	249064	AARON. J	57	62	70	70	50	309	61.80	88.67[618.0,70

Performance Analysis

Total Appeared	64	64	64	64	64
Total Passed	45	41	42	39	14
Total Failed(Fail + Absent)	19	23	22	25	50
Above 80	2	5	11	1	2
Between 50-59	20	18	14	10	7
Pass%	**70**	**64**	**66**	**61**	**22**

Subcode	Title	Faculty Name

CCS335	Cloud Computing	Dr.S.Venkatasubramanian
CCS367	Storage Technologies	Mr.R.Mohan Kumar
CS3691	EMBEDDED SYSTEMS AND IOT	Ms.B.Divya
CW3501	FUNDAMENTALS OF MANAGEMENT	Mr.P.V.Rajesh
CW3551	DATA AND INFORMATION SECURITY	Ms.A.Thenmozhi

Saranathan College of Engineering, Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

C1.2.1

2023 – 2024 (Odd Semester)

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24.8.2023

Circular

First Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 29.8.2023 as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – First Hour

11.50 a.m. – 12.45 p.m. – Second Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
29.8.2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS335-Cloud computing	CS3691-Embedded System and IOT
31.8.2023	CS3501-Compiler Design	CEC332-Advanced Digital Signal Processing	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	CCS334-BigData Analysis	CW3551-Data and Information Security
2.9.2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	AD3501-Deep Learning	CCS335-Cloud Computing
4.9.2023	CS3551-Distributed Computing	CEC331-4G/5G Communication Networks	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CW3551-Data and Information Security	CCS367-Storage Technologies
5.9.2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CS3551-Distributing Computing	CW3501-Fundamentals of Management
9.9.2023	CCS375-Web Technologies	EC3501-Wireless Communication	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS341- Data Warehousing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
29.8.2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
31.8.2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
2.9.2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-InstrumentationinPetrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
4.9.2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
5.9.2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9.9.2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Second Year FIRST IA TEST FOR I AND II Year _October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.27.09.2023

Circular

Second Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 3rd October 2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 3rd Hour

11.50 a.m. – 12.45 p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS OCTOBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
3rd October2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th October 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
5th October2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th October 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	CCS367-Storage Technologies
9th October 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
10th October2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS335-Cloud computing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS _OCTOBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
3rd October2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th October 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
5th October2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-Instrumentationin Petrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th October 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
9th October 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
10th October2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.23.11.2023

Circular

Internal Assessment **Test – 2** for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 27.11.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – FIRST HOUR

11.50 a.m. – 12.45 p.m. – SECOND HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.30.10.2023

Circular

Third Internal Assessment Test for Third Year (5th Sem.) & Final Year (VII Sem.) B.E./B.Tech., Classes will commence from 2nd November 2023 (THURSDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS NOVEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
2nd November 2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control		CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th November 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE301-Power Electronics for Renewable Energy Systems	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
6th November 2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th November 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	
8th November 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
9th November 2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation	ME3592-Metrology and Measurements	CE3025-Airports and Harbours	CCS335-Cloud computing	CCS367-Storage Technologies

Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS _ NOVEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
2nd November 2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th November 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
6th November 2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	GE8073-Fundamentals of Nanoscience	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th November 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
8th November 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9th November 2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	EI8091-Instrumentationin Petrochemical Industries	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21.12.2023

Circular

Internal Assessment Test – 3 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 26.12.2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – **FIRST HOUR**

11.50 a.m. – 12.45 p.m. – **SECOND HOUR**

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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21/12/23

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

THIRD IA TEST FOR II Year _December 2023

S.No.	1	2	3	4	5	6
Date	26-Dec-23	27-Dec-23	28-Dec-23	30-Dec-23	02-Jan-24	03-Jan-24
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	MA3355 -Random Processes and Linear Algebra	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	EI3354 - Linear Integrated Circuits and Applications	CS3353 - C Programming and Data Structures	EI3351 - Analog Electronics
Mech.,	ME3393 - Manufacturing Processes	ME3351 - Engineering Mechanics	MA3351 - Transforms and Partial Differential Equations	ME3391 - Engineering Thermodynamics	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery
CIVIL	CE3303 - Water Supply and Wastewater Engineering	CE3302 - Construction Materials and Technology	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

SARANATHAN COLLEGE OF ENGINEERING

TIRUCHIRAPALLI - 620 012, Tamil Nadu – 620012.

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

(Accredited with NAAC A+ Grade)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Internal Assessment Test - I			**Date/Session**	**/ 11 / 2023 -FN**	**Marks**	**50**
Course code	CS3352	**Course Title**	**FOUNDATION OF DATA SCIENCE**			
Batch No.		**Duration**	90 Mins	**Academic Year**	2023-2024- ODD	
Year	**II**	**Semester/Section**	**III /**	**Department**	**C. S. E**	

Part – A (10 x 2 =20 marks)

Q. No.	Questions	CO	Skills
1	Define Data Science.	C203.1	R
2	What are the three Vs in big data characteristics?	C203.1	R
3	What are the benefits and uses of Data Science?	C203.1	R
4	What is Cross-Selling and Upselling?	C203.1	R,U
5	What are the uses of Statistics in Data Science?	C203.1	R
6	What is an Independent Variable and Dependent Variable?	C203.1	R
7	Define Confounding Variable	C203.1	R
8	What is Frequency Distribution?	C203.1	R
9	Name the graphs used to Represent Quantitative Data.	C203.1	R
10	Define Outliers.	C203.1	R

PART –B (10 X 2=20 MARKS)

11	Explain in detail about Facets of Data with Suitable Example.	C203.1	R
	OR		
12	Explain about Data Science Data and compare Structured and Unstructured Data	C203.1	R
13	Explain in detail about Relative Frequency Distribution and Construct them with a Table.	C203.2	U, A, AZ
	OR		
14	14.1 What is Stem and Leaf Display? Find the Stem and Leaf for the Table 1 given below (5 Marks) Table 1 **CONSTRUCTING STEM AND LEAF DISPLAY FROM WEIGHTS OF MALE STATISTICS STUDENTS** **RAW SCORES** 160 165 135 175 193 168 245 165 226 169 170 185 152 160 156 154 180 170 160 179 205 150 225 165 163 152 190 206 157 160 159 165 151 190 172 157 157 150 190 156 220 133 166 135 145 180 158 158 152 152 172 170 156 **STEM AND LEAF DISPLAY**	C203.2	R, U, A, AZ
	14.2. Explain the Types of Variable and Various Levels of Data measurement (5 Marks)	C203.2	R

	PART – C (10 X 1=10 MARKS)		
15	Explain in detail about the Data Science Process.	C203.1	R, U
	OR		
16	Explain in detail about the Statistical Descriptions of Data.	C203.1	R, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C)

********** ***ALL THE BEST*** **********

Faculty* In-Charge**: ***Mr. B. Rethina Kumar AP/CSE, Mr.M. Arun Prasad AP/CSE.

K. Stanley Rebecca
241015
III CSE 'A'

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	M.A. Janani Shanmugi			Year / Semester / Section	III / V / A
Batch No.	24/050	Date / Session	04/11/23 FN	Department	CSE
Course Code	CS3501	Course Title	Compiler Design		
Internal Assessment Test	I ☐	II ☐	III ☒	Model ☐	No. of pages used : 19
Name and Signature of the Invigilator with date	4/11/23		K. Sathya Prabha		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✓	Marks	Q. NO.	✓	(a) Marks	✓	(b) Marks	
1	✓	2	11	✓	9			9
2	✓	2	12					
3	✓	2	13	✓	6	✓	3	9
4	✓	2	14					
5	✓	2	15	✓	4	✓	4	8
6	✓	2	16					
7	✓	2					Total	26
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

46/50 Good & neat — Grand Total

4/11/23 E. SHAPNA RANI — Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted					30	20	50
Marks Obtained					28	18	: 46

QAC Audit - Remarks

—

P. Anand, AP / CSE

Name and Signature of the QAC member

Print Report

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of B.E. Computer Science Engineering

Internal Assessment - Attainment of Courses Outcomes (Through Direct Assessment)

Academic Period 2023 - 2024 / ODD Semester			
COURSE CODE/TITLE	WEB TECHNOLOGIES	Batch	2021 - 2025
CLASS / SECTION	Sem 5 / CSE A & B	COURSE OUTCOME	1 2 3 4 5 6
COURSE COORDINATOR	Mr.K.S.Chandrasekaran / Ms.J.Sathia Parkavi	TARGET	65 65 65 65 65 65

ATTAINMENT LEVEL

Level	Range
1	0-60% of the Students scored more than target
2	61-90% of the Students scored more than target
3	90% of the Students scored more than target

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	
			68	**32**						**100**	**60**								**40**	**100**		**20**	**20**					**88**	**152**	**60**	**40**	**100**	
1	813821104001	AADHESH. D	62	30						72									68		20	20					82	122			68	
2	813821104002	AARTHI MAHALAKSHMI. V	58	24						74									0		20	20					78	118			0	
3	813821104003	ABARNA. T C	62	26						68									0		20	20					82	114			0	
4	813821104004	ABINAYA. B D	52	22						80									62		20	20					72	122			62	
5	813821104005	ABIRAMI. V	60	30						90									84		20	20					80	140			84	
6	813821104006	AGALYA. S	22	2						16									12		20	20					42	38			12	
7	813821104007	AGNES STEFFI. A	56	26						70									58		20	20					76	116			58	
8	813821104008	AKASH. S	52	22						68									0		20	20					72	110			0	
9	813821104009	AKSHAYA SHREE. S	36	2						50									0		20	20					56	72			0	
10	813821104010	ALAAGAMMAI. S	64	30						96									0		20	20					84	146			0	
11	813821104011	ALAN J JOHN	56	10						74									36		20	20					76	104			36	
12	813821104012	AMRISHKANNA. R	54	8						80									74		20	20					74	108			74	
13	813821104013	ARAVINDHAN. A	0	0						16									10		20	20					20	36			10	
14	813821104015	ASHLEY REBECCA. R	58	26						82									80		20	20					78	128			80	
15	813821104016	ASLIN. A	40	20						66									50		20	20					60	106			50	
16	813821104017	ATHITHYA. A	58	18						88									74		20	20					78	126			74	
17	813821104018	AVANTHIKA. M G	54	18						68									68		20	20					74	106			68	
18	813821104019	BARATH. B	62	24						84									76		20	20					82	128			76	
19	813821104020	BHUVANA. D	60	22						74									78		20	20					80	116			78	
20	813821104021	CAUVERY. R	52	22						86									74		20	20					72	128			74	
21	813821104022	CHAARUBHALA. S	58	26						88									88		20	20					78	134			88	
22	813821104023	DARWIN SHIYAM. B	24	26						72									50		20	20					44	118			50	
23	813821104024	DEEPIKA. D	62	24						86									78		20	20					82	130			78	
24	813821104025	DEEPIKA. S	66	26						80									78		20	20					86	126			78	
25	813821104026	DENITA. P	56	20						84									76		20	20					76	124			76	
26	813821104027	DHANENDRAN. S	60	24						94									86		20	20					80	138			86	
27	813821104028	DHANUSHAVARTHINI. S	50	20						76									82		20	20					70	116			82	
28	813821104029	DHARANIDHARAN. P	38	14						50									42		20	20					58	84			42	
29	813821104030	DHARSHNI. B	54	20						70									68		20	20					74	110			68	
30	813821104031	DHINESHKUMAR. S	0	0						0									10		20	20					20	20			10	
31	813821104032	DIVYA VAISHNAVI. V	62	26						92									90		20	20					82	138			90	
32	813821104033	ERAIARUL. K	18	0						54									52		20	20					38	74			52	
33	813821104034	ESWARA PANDIYAN. K	40	26						62									68		20	20					60	108			68	
34	813821104035	FARIYA RAHMATH. N	54	28						74									58		20	20					74	122			58	
35	813821104036	FRANCLIN. E	60	26						88									80		20	20					80	134			80	
36	813821104037	GAYATHRI. K	56	24						76									72		20	20					76	120			72	
37	813821104038	GAYATHRI. R	50	30						90									82		20	20					70	140			82	
38	813821104039	GAYATHRI DEVY. S	62	26						86									76		20	20					82	132			76	
39	813821104040	GOKUL. S	52	24						52									50		20	20					72	96			50	
40	813821104041	GOKULA KRISHNAN. S	58	26						74									72		20	20					78	120			72	
41	813821104042	GOPPYKRISHNA. M	66	26						76									64		20	20					86	122			64	
42	813821104043	GURULAKSHMI. S	58	26						82									84		20	20					78	128			84	
43	813821104044	HARIHARAN. T	50	20						60									66		20	20					70	100			66	
44	813821104045	HARIKARAN. M	50	26						74									64		20	20					70	120			64	
45	813821104046	HARINI. P R	50	26						80									76		20	20					70	126			76	
46	813821104047	HARI PRASATH. R B	50	24						86									86		20	20					70	130			86	
47	813821104048	JALANDHARA. A K	54	24						80									64		20	20					74	124			64	
48	813821104049	JANANI SAKTHIVEL. S	50	18						86									84		20	20					70	124			84	
49	813821104050	JANANI SHANMUGI. M A	64	30						88									88		20	20					84	138			88	
50	813821104051	JEMIMA GLADYS THANGAM. R	52	16						76									74		20	20					72	112			74	
51	813821104052	JOCELYN. A	52	24						44									80		20	20					72	88			80	

52	813821104053	JOHNSON. P	54	18						70								74		20	20				74	108			74	
53	813821104054	KABILAN. N L	56	18						76								50		20	20				76	114			50	
54	813821104055	KARTHICK. M	40	18						0								60		20	20				60	38			60	
55	813821104056	KAUSIK. T	40	24						68								64		20	20				60	112			64	
56	813821104057	KHRUSANTH. S	44	18						72								70		20	20				64	110			70	
57	813821104058	KIRUTHIKA. K	40	20						70								58		20	20				60	110			58	
58	813821104059	KISHORE KUMAR. M S	60	30						82								78		20	20				80	132			78	
59	813821104060	MARCIA JAYSEE. J	60	20						84								74		20	20				80	124			74	
60	813821104061	MOHAMED ABRAR. M	15	15						32								16		20	20				35	67			16	
61	813821104062	MONISHA. J	60	24						82								70		20	20				80	126			70	
62	813821104063	MOTHILAL. K	0	0						56								38		20	20				20	76			38	
63	813821104064	NAGA SHARAVANESH. S	44	26						34	36						26	48		40					84	60	36	26	48	
64	813821104065	NANDHINI. S	40	22						36	46						34	44		40					80	58	46	34	44	
65	813821104066	NAVEEN. M V	16	20						14	42						8	0		40					56	34	42	8	0	
66	813821104067	NAVEEN. P	50	26						30	42						24	52		40					90	56	42	24	52	
67	813821104068	NAVIN. M	18	0						8	20						4	14		40					58	8	20	4	14	
68	813821104069	PAVITHRA. S	44	20						32	26						0	0		40					84	52	26	0	0	
69	813821104070	PRADEEP KUMAR. M	24	10						20	30						14	30		40					64	30	30	14	30	
70	813821104071	PRAGADEESHWARAN. S	38	18						34	24						24	28		40					78	52	24	24	28	
71	813821104072	PRAGADISWAR. R	38	24						6	44						4	0		40					78	30	44	4	0	
72	813821104073	PRIYADHARSHNI. M	44	20						24	48						28	38		40					84	44	48	28	38	
73	813821104074	PURUSOTH. K R	34	10						28	44						26	36		40					74	38	44	26	36	
74	813821104075	RENEIL JOSHUA. S	44	20						32	50						26	54		40					84	52	50	26	54	
75	813821104076	RENITA. P	30	20						34	20						32	28		40					70	54	20	32	28	
76	813821104077	REVATHI. N	36	20						34	32						30	38		40					76	54	32	30	38	
77	813821104078	RINOZ FATHIMA. J	50	16						40	30						26	42		40					90	56	30	26	42	
78	813821104079	RIYAZ KHAN. K I	18	0						0	6						0	0		40					58	0	6	0	0	
79	813821104080	ROSHINI. R	36	26						32	46						28	52		40					76	58	46	28	52	
80	813821104081	SACHIDANANDAM. K	36	16						28	40						18	24		40					76	44	40	18	24	
81	813821104082	SAICHARAN. P	38	2						28	32						12	26		40					78	30	32	12	26	
82	813821104083	SAI PRASATH. S	14	6						22	28						22	12		40					54	28	28	22	12	
83	813821104084	SAMUEL STEWART. M J	24	8						40	32						8	12		40					64	48	32	8	12	
84	813821104085	SANAFAR FARHANA. S	36	16						22	30						20	38		40					76	38	30	20	38	
85	813821104086	SANGEETHARASU. A	38	6						10	8						24	26		40					78	16	8	24	26	
86	813821104087	SANTHOSH. S	56	18						28	46						20	42		40					96	46	46	20	42	
87	813821104088	SETHUMADHAVAN. V	28	6						22	28						8	2		40					68	28	28	8	2	
88	813821104089	SHAFRIN SHA. R S	42	12						26	40						26	40		40					82	38	40	26	40	
89	813821104090	SHIVANI. M J	36	14						34	46						28	34		40					76	48	46	28	34	
90	813821104091	SHIVANI. S	2	0						26	46						12	38		40					42	26	46	12	38	
91	813821104092	SHRIJA. J	36	14						28	36						34	36		40					76	42	36	34	36	
92	813821104093	SHWETHA. B	46	20						22	44						20	40		40					86	42	44	20	40	
93	813821104094	SHYAM SUNDAR. K N	46	22						18	34						18	38		40					86	40	34	18	38	
94	813821104095	SIVACHARAN. V	30	8						20	38						22	32		40					70	28	38	22	32	
95	813821104096	SIVAKARTHIKEYAN. D	40	10						28	34						22	30		40					80	38	34	22	30	
96	813821104097	SREE SUVETHA. G	52	32						38	56						32	54		40					92	70	56	32	54	
97	813821104099	SRILEKHA. A	48	24						30	38						30	32		40					88	54	38	30	32	
98	813821104100	SRIRAM. A	8	0						12	32						20	24		40					48	12	32	20	24	
99	813821104101	SRIRAM. K R	16	8						4	8						2	30		40					56	12	8	2	30	
100	813821104102	SUDARSAN. S	54	28						38	54						34	40		40					94	66	54	34	40	
101	813821104103	SUJI. P	38	12						24	36						26	38		40					78	36	36	26	38	
102	813821104104	SURENDRAN. B R	56	24						26	36						36	38		40					96	50	36	36	38	
103	813821104105	SURIYA PRAKASH. M	22	4						2	18						10	26		40					62	6	18	10	26	
104	813821104106	SURYAA. D	54	28						30	54						22	36		40					94	58	54	22	36	
105	813821104107	SURYA PRAKASH. G	40	16						32	36						28	46		40					80	48	36	28	46	
106	813821104108	SYED MASOOD. S	46	14						26	50						30	48		40					86	40	50	30	48	
107	813821104109	TEJESHWAR. M	56	22						20	42						22	32		40					96	42	42	22	32	
108	813821104110	THANZIA. Z	60	26						32	54						32	50		40					100	58	54	32	50	
109	813821104111	THOLKAPPIYAN. M	34	16						18	22						4	20		40					74	34	22	4	20	
110	813821104113	VAIRAVAN. M	50	28						30	38						32	36		40					90	58	38	32	36	
111	813821104114	VARSHA. P	40	10						32	34						32	26		40					80	42	34	32	26	
112	813821104115	VELVIZHI. V V	38	24						30	42						28	34		40					78	54	42	28	34	
113	813821104116	VETRI SELVAN. S R	40	12						26	30						10	16		40					80	38	30	10	16	
114	813821104117	VIGNESH. L	48	26						28	52						20	34		40					88	54	52	20	34	
115	813821104118	VIGNESH. S	50	26						26	46						20	38		40					90	52	46	20	38	
116	813821104119	VIGNESHWARAN. G	40	16						26	38						26	28		40					80	42	38	26	28	
117	813821104120	VIJAY AADHITYA. A	22	2						10	2						6	16		40					62	12	2	6	16	
118	813821104121	VIJAYA VARMAN. T	36	14						20	32						26	40		40					76	34	32	26	40	
119	813821104122	VINITH. K	48	24						34	38						32	48		40					88	58	38	32	48	

120	813821104123	VISHWA. N	40	10						22	28							26	42		40					80	32	28	26	42	
121	813821104124	VISNU PRIYAA. B	58	30						38	54							40	52		40					98	68	54	40	52	
122	813821104125	YUVARAJ. S	34	16						22	28							6	10		40					74	38	28	6	10	
123	813821104301	BHARATH. J B	42	28						22	38							22	40		40					82	50	38	22	40	
124	813821104302	GOPALAKRISHNAN. T	0	0						24									0		20	20				20	44			0	
125	813821104303	KUMARESAN. R	52	28						18	34							16	36		40					92	46	34	16	36	
126	813821104304	MOHAMED ASLAM. A	46	18						20	20							20	34		40					86	38	20	20	34	
127	813821104305	MOHAMED IJAS. F	14	14						40									14		20	20				34	74			14	
128	813821104306	PRAKASH. S	10	7						54									14		20	20				30	81			14	
129	813821104307	RANJITH. M	20	6						6	18							12	18		40					60	12	18	12	18	
130	813821104308	VIGNESH. K	36	14						24	30							30	40		40					76	38	30	30	40	
131	813821104501	VINISHA. G	40	22						18	34							20	40		40					80	40	34	20	40	
CO's Target Value																										57.20	98.80	39.00	26.00	65.00	0
No. of Student Secured above CO's Target value																										115	51	86	82	36	
Percentage of Student Secured above Target																										87.79	38.93	65.65	62.60	27.48	0

H.O.D. (CSE)
Saranathan College of Engg.,
Trichirapalli - 620 012.

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of B.E. Computer Science Engineering

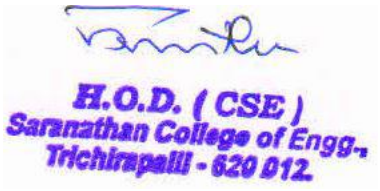
COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION

COURSE CODE/TITLE CCS375 WEB TECHNOLOGIES	Batch 2021 - 2025
CO Attainment Level: 1 - (0% - 60%) 2- (61%-90%) 3-(91% and Above)	

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
1	813821104001	AADHESH. D	A+
2	813821104002	AARTHI MAHALAKSHMI. V	A
3	813821104003	ABARNA. T C	A+
4	813821104004	ABINAYA. B D	A
5	813821104005	ABIRAMI. V	A+
6	813821104006	AGALYA. S	B+
7	813821104007	AGNES STEFFI. A	A+
8	813821104008	AKASH. S	A
9	813821104009	AKSHAYA SHREE. S	A
10	813821104010	ALAAGAMMAI. S	A+
11	813821104011	ALAN J JOHN	A
12	813821104012	AMRISHKANNA. R	A
13	813821104013	ARAVINDHAN. A	B
14	813821104015	ASHLEY REBECCA. R	A
15	813821104016	ASLIN. A	A
16	813821104017	ATHITHYA. A	A+
17	813821104018	AVANTHIKA. M G	A
18	813821104019	BARATH. B	A+
19	813821104020	BHUVANA. D	A
20	813821104021	CAUVERY. R	A
21	813821104022	CHAARUBHALA. S	A+
22	813821104023	DARWIN SHIYAM. B	A
23	813821104024	DEEPIKA. D	A+
24	813821104025	DEEPIKA. S	O
25	813821104026	DENITA. P	A
26	813821104027	DHANENDRAN. S	A+
27	813821104028	DHANUSHAVARTHINI. S	A
28	813821104029	DHARANIDHARAN. P	A
29	813821104030	DHARSHNI. B	A
30	813821104031	DHINESHKUMAR. S	B+
31	813821104032	DIVYA VAISHNAVI. V	A+
32	813821104033	ERAIARUL. K	B+
33	813821104034	ESWARA PANDIYAN. K	A
34	813821104035	FARIYA RAHMATH. N	A
35	813821104036	FRANCLIN. E	A
36	813821104037	GAYATHRI. K	A
37	813821104038	GAYATHRI. R	A
38	813821104039	GAYATHRI DEVY. S	A
39	813821104040	GOKUL. S	A
40	813821104041	GOKULA KRISHNAN. S	A
41	813821104042	GOPPYKRISHNA. M	A
42	813821104043	GURULAKSHMI. S	O
43	813821104044	HARIHARAN. T	A
44	813821104045	HARIKARAN. M	A
45	813821104046	HARINI. P R	A+
46	813821104047	HARI PRASATH. R B	A
47	813821104048	JALANDHARA. A K	A
48	813821104049	JANANI SAKTHIVEL. S	A
49	813821104050	JANANI SHANMUGI. M A	A+
50	813821104051	JEMIMA GLADYS THANGAM. R	A
51	813821104052	JOCELYN. A	A
52	813821104053	JOHNSON. P	A
53	813821104054	KABILAN. N L	A
54	813821104055	KARTHICK. M	A
55	813821104056	KAUSIK. T	A
56	813821104057	KHRUSANTH. S	A
57	813821104058	KIRUTHIKA. K	A
58	813821104059	KISHORE KUMAR. M S	A+
59	813821104060	MARCIA JAYSEE. J	A
60	813821104061	MOHAMED ABRAR. M	B+
61	813821104062	MONISHA. J	A
62	813821104063	MOTHILAL. K	B+
63	813821104064	NAGA SHARAVANESH. S	A+
64	813821104065	NANDHINI. S	A

65	813821104066	NAVEEN. M V	B+
66	813821104067	NAVEEN. P	A+
67	813821104068	NAVIN. M	B+
68	813821104069	PAVITHRA. S	B+
69	813821104070	PRADEEP KUMAR. M	B+
70	813821104071	PRAGADEESHWARAN. S	A
71	813821104072	PRAGADISWAR. R	A
72	813821104073	PRIYADHARSHNI. M	A
73	813821104074	PURUSOTH. K R	B+
74	813821104075	RENEIL JOSHUA. S	A
75	813821104076	RENITA. P	A
76	813821104077	REVATHI. N	A
77	813821104078	RINOZ FATHIMA. J	A
78	813821104079	RIYAZ KHAN. K I	B
79	813821104080	ROSHINI. R	A
80	813821104081	SACHIDANANDAM. K	A
81	813821104082	SAICHARAN. P	A
82	813821104083	SAI PRASATH. S	A
83	813821104084	SAMUEL STEWART. M J	A
84	813821104085	SANAFAR FARHANA. S	A
85	813821104086	SANGEETHARASU. A	B+
86	813821104087	SANTHOSH. S	A
87	813821104088	SETHUMADHAVAN. V	B+
88	813821104089	SHAFRIN SHA. R S	A
89	813821104090	SHIVANI. M J	A
90	813821104091	SHIVANI. S	A
91	813821104092	SHRIJA. J	A
92	813821104093	SHWETHA. B	A
93	813821104094	SHYAM SUNDAR. K N	A
94	813821104095	SIVACHARAN. V	B+
95	813821104096	SIVAKARTHIKEYAN. D	A
96	813821104097	SREE SUVETHA. G	A+
97	813821104099	SRILEKHA. A	A+
98	813821104100	SRIRAM. A	B+
99	813821104101	SRIRAM. K R	A
100	813821104102	SUDARSAN. S	A+
101	813821104103	SUJI. P	A
102	813821104104	SURENDRAN. B R	A
103	813821104105	SURIYA PRAKASH. M	B+
104	813821104106	SURYAA. D	A+
105	813821104107	SURYA PRAKASH. G	A
106	813821104108	SYED MASOOD. S	A
107	813821104109	TEJESHWAR. M	A
108	813821104110	THANZIA. Z	A+
109	813821104111	THOLKAPPIYAN. M	A
110	813821104113	VAIRAVAN. M	A
111	813821104114	VARSHA. P	B+
112	813821104115	VELVIZHI. V V	A
113	813821104116	VETRI SELVAN. S R	A
114	813821104117	VIGNESH. L	A
115	813821104118	VIGNESH. S	A
116	813821104119	VIGNESHWARAN. G	A
117	813821104120	VIJAY AADHITYA. A	B+
118	813821104121	VIJAYA VARMAN. T	A
119	813821104122	VINITH. K	A
120	813821104123	VISHWA. N	A
121	813821104124	VISNU PRIYAA. B	A+
122	813821104125	YUVARAJ. S	A
123	813821104301	BHARATH. J B	A
124	813821104302	GOPALAKRISHNAN. T	B+
125	813821104303	KUMARESAN. R	A
126	813821104304	MOHAMED ASLAM. A	A
127	813821104305	MOHAMED IJAS. F	B+
128	813821104306	PRAKASH. S	A
129	813821104307	RANJITH. M	B+
130	813821104308	VIGNESH. K	B+
131	813821104501	VINISHA. G	A
No. of S/O(R21) Grade			2
No. of A/A+(R21) Grade			22
No. of B/A(R21) Grade			84
No. of C/B+(R21) Grade			21

No. of D/B(R21) Grade	2
No. of E/C(R21) Grade	0
Target for course outcome Attainment	65
No of students above the target	129
CO-Attainment University	98.00



CO	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO-UNI) (Avg. Attainment of All section) (%)	Direct CO Attainment (0.40xCO-INT + 0.60xCO-UNI) (%)	Indirect CO Attainment (Course End Survey)	Over all CO Attainment (0.8xDirect + 0.2xIndirect) (%)	Over all CO Attainment Level
C306PE2V21.1	87.79	98.00	93.91	77.18	90.57	2
C306PE2V21.2	38.93	98.00	74.37	76.41	74.78	2
C306PE2V21.3	65.65	98.00	85.06	74.10	82.87	2
C306PE2V21.4	62.60	98.00	83.84	75.90	82.25	2
C306PE2V21.5	27.48	98.00	69.79	76.92	71.22	2
C306PE2V21.6	0.00	98.00	58.80	78.46	62.73	2

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C306PE2V21.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C306PE2V21.2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C306PE2V21.3	3	3	3	3							3	3	3	3	3
C306PE2V21.4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C306PE2V21.5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C306PE2V21.6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C306PE2V21	3.00	3.00	3.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	3.00	3.00	3.00	3.00	3.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C306PE2V21.1	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
C306PE2V21.2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
C306PE2V21.3	2.00	2.00	2.00	2.00							2.00	2.00	2.00	2.00	2.00
C306PE2V21.4	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
C306PE2V21.5	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
C306PE2V21.6	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
C306PE2V21	2.00	2.00	2.00	2.00	1.67	1.67	1.67	1.67	1.67	1.67	2.00	2.00	2.00	2.00	2.00

H.O.D. (CSE)
Saranathan College of Engg.,
Trichirapalli - 620 012.

Saranathan College of Engineering, Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

C1.2.1

2023 – 2024 (Even Semester)

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th Feb"2024

Circular

First Internal Assessment Test for Third Year (6th Sem.) B.E./B.Tech., Classes will commence from 26th February 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
FIRST IA Test_for Third Year B.E./B.Tech., _ February / March 2024

Year: Third Year

Date /Branch	26.2.2024	27.2.2024	28.2.2024	29.2.2024	2.3.2024	4.3.2024
CSE	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded Systems and IOT	CCW331 - Business Analytics	CCS334 - Big Data Analytics	CCS336 - Cloud Services Management	CCS341 - Data Warehousing
ECE	CEC349 - RFID System Design & Testing	OEE351 - Renewable Energy System	CEC354 - Software Defined Networks	CS3491 - Artificial Intelligence and Machine Learning	ET3491 - Embedded Systems and IOT Design	
EEE	EE3601 - Protection and Switchgear	EE3602 - Power System Operation and Control	OCS352 - IOT Concepts and Applications	EE3011 - Multilevel Power Converters	EE3020 - Smart System Automation	
IT	CCS356 - Object Oriented Software Engineering	CCS366 - Software Testing and Automation	CCS354 - Network Security	CCS335 - Cloud Computing	CCS334 - Big Data Analytics	
ICE	EI3651 - Industrial Automation Systems	CIC341 - Electric Vehicle Technology	CIC343 - Instrumentation in Petrochemical Industry	CIC340 - Analytical Instrumentation	CIC339 - Fibre Optics Instrumentation	EI3652 - Introduction to Industrial Processes, Measurement and Control
Mech.,	CME386 - Gas Dynamics and Jet Propulsion	CME384 - Power Plant Engineering	CME380 - Automobile Engineering	ME3691 - Heat and Mass Transfer	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	
Civil	CE3602 - Structural Analysis II	AG3601 - Engineering Geology	CE3013 - Advanced Construction Techniques	CE3601 - Design of Steel Structural Elements	CE3009 - Construction Equipment and Machinery	CCE332 - Environmental Health and Safety
CSBS	CCW331 - Business Analytics	CCS356 - Object Oriented Software Engineering	CCW332 - Digital Marketing	CCS360 - Recommender Systems	CCS346 - Exploratory Data Analysis	CW3007 - IT Project Management
AIDS	CCS365 - Software Defined Networks	CS3691 - Embedded System & IOT	CCS372 - Virtualization	CCW332 - Digital Marketing	CCS336 - Cloud Service Management	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21 March 2024

Circular

First Internal Assessment Test for First Year (2nd Sem.) & Second Year (4thSem.)B.E./B.Tech., Classes will commence from 1st April 2024(MONDAY) as per the time table attached.

Test Duration

~~9.15 am to 10.45 am (1 ½ Hours)~~

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rdHour

11.50 a.m. – 12.45p.m. – 4thHour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

First IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
1st April 2024	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology
2nd April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
3rd April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
4thApril 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
5th April 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
6th April 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
8th April 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

First IA Test for Second Year (4th Sem.) _ April 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
1st April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	CE3401 - Applied Hydraulics Engineering	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
2nd April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3451 - Introduction to Operating System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3404 - Soil Mechanics	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
3rd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3492 - Data Base Management System	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4thApril 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3452 - Theory of Computation	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3402 - Strength of Materials	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	CS3491 - Artificial Intelligence and Mechine Learning	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3403 - Concrete Technology	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
8th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	IT3401 - Web Essentials	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	GE3451 - Environmental Sciences and Sustainability	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

21 March 2024

Circular

Second Internal Assessment Testfor Third Year (6th Sem.)& Final Year (8th Sem.) for B.E./B.Tech., Classes will commence from 25thMarch 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Third Year (6th Sem.) _ April 2024

Year: Third **Sem. 6th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
25th March 2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing	EE3601 - Protection and Switchgear	CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer	CE3602 - Structural Analysis II	CCW331 - Business Analytics	CCS365 - Software Defined Networks
26th March 2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3602 - Power System Operation and Control	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
27th March 2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	OCS352 - IOT Concepts and Applications	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construccion Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
28th March 2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	EE3011 - Multilevel Power Converters	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
1st April 2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3020 - Smart System Automation	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
2nd April 2024	CCS341 - Data Warehousing				CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Final Year (8th Sem.) _ April 2024

Year: Final Year **Sem. 8th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil
25th March 2024							
26th March 2024							
27th March 2024							GE8076 - Professional Ethics In Engineering
28th March 2024							CE8020 - Maintanance, Repair and Rehabilation of Structures
1st April 2024							
2nd April 2024							

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th April 2024

Circular

Second Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 29th April 2024 (MONDAY) as per the time table attached.

-Test Duration-

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members.

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

II [redacted] IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
29th April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
30th April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
2nd May 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
3rd May 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
4th May 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
6 th May 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

II IA Test for Second Year (4th Sem.) _ April 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
29th April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
30th April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3492 - Data Base Management System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
2nd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4th April 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3491 - Artificial Intelligence and Mechine Learning	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	IT3401 - Web Essentials	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
7th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3451 - Introduction to Operating System	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.17th April 2024

Circular

Third Internal Assessment Test for Third Year (6th Sem.) for B.E. / B.Tech., Classes will commence from 22nd April 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
T H I R D - I A Test for Third Year (6th Sem.) _ April _ May 2024

Year: Third Sem. 6th

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
22.4.2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing		CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer		CCW331 - Business Analytics	CCS365 - Software Defined Networks
23.4.2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3601 - Protection and Switchgear	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
24.4.2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	EE3602 - Power System Operation and Control	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
25.4.2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	OCS352 - IOT Concepts and Applications	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
29.4.2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3011 - Multilevel Power Converters	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
30.4.2024	CCS341 - Data Warehousing		EE3020 - Smart System Automation		CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	
2.5.2024							CE3602 - Structural Analysis II		

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.29th May 2024

Circular

Third Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 3rd June 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

After IA Test coaching class will be conducted for next day IA test subject.

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

Third IA Test for Second Year (4th Sem.) _ June 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
3rd June 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
4th June 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	IT3401 - Web Essentials	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	CS3452 - Theory of Computation
5th June 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AL3451 - Machine Learning	CS3492 - Database Management System	AL3452 - Operating Systems
6th June 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3492 - Data Base Management System	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	AD3391 - Database Design and Management
10th June 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	CS3451 - Introduction to Operating System	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
11th June 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3491 - Artificial Intelligence and Mechine Learning	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

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SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

Third IA Test for First Year (2nd Sem.) _ June 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
3rd June 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
4th June 2024	Batch - 1 ---------(MA3251) Batch - 2 ----------PH3256 / PH3254 / PH3201 / PH3255						
5th June 2024	Batch - 1 ---------- PH3256 / PH3202 / PH3251 Batch - 2 ----------(MA3251)						
6th June 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation
7th June 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
10th June 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Batch - 1 - AIDS (A Sec) , CSE (A & B Sec), AIML, EEE, Mech.,
Batch - 2 - AIDS (B Sec) , IT, CSBS, ECE (A & B Sec), Civil, ICE

Principal

(Finalone)

Saranathan College of Engineering

Tiruchirapalli

INTERNAL ASSESSMENT TEST2			Date/ Session	30.04.2024	Marks	50
Course code	CCS341	Course Title	DATA WAREHOUSING			
Batch No.		Duration	1 hour 30 mins	Academic Year	2023-2024	
Year/	III	Semester/ Section	VI /A& B	Department	CSE	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the elements of Dimensional Data model?	C313PE3V304.4	U & R
2	Mention the use of Concept Hierarchy.	C313PE3V304.4	A
3	What is Business Process in Dimensional modeling?	C313PE3V304.4	R
4	Define Facts and its types	C313PE3V304.4	R
5	What is a Data Cube? Give an example	C313PE3V304.4	U & R
6	Illustrate the two goals needed in searching better performance and scalability.	C313PE3V304.4	A
7	What is data partitioning with its techniques?	C313PE3V304.4	A&R
8	Identify the role of system manager in data warehousing	C313PE3V304.5	A&R
9	What is the role of data warehouse manager?	C313PE3V304.5	R
10	What is backup and recovery in data warehouse?	C313PE3V304.5	A&R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(i) Discuss in brief about various schemas in multidimensional Data model (ii) Differentiate Fact table and Dimensional Table	C313PE3V304.4	U & R
	Or		
12	(i) Discuss the various types of Database Parallelism with suitable examples (ii)Describe in detail about Mapping the Data warehouse to a multiprocessor architecture	C313PE3V304.4	A&R
13	(i) Describe in detail about working of system scheduling manager. (ii) Summarize the role of load manager and warehouse manager.	C313PE3V304.5	AZ& R
	Or		
14	Discuss about query manager process in detail.	C313PE3V304.5	U&R

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Discuss in detail about the case study of Designing a dimensional model for cargo Shipper	C313PE3V304.4	A,AZ&R
	Or		
16	Explore the type of schemas with a simple example of credit card payments data from Burst Bank. Assume the credit card payments fact table is related to four dimensions: location, date, credit card account, and customer group. Customer group includes estimated income and age. The fact table also includes many aggregate measures of data credit card payment data, such as the percent of full payments collected and the percent of minimum payments collected. Business analysts can use these measures to answer the types of questions that will help their company make business decisions. An example of a question that they could answer with this data is: Are customers over the age of 40 more likely than customers under 40 to make full payments? Which schema would you use to model the data warehouse? Explain with reasoning	C313PE3V304.4	A,AZ&R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty incharge: Ms.K. Mohanappriya&Ms.M.BanuPriya

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	R. Balaji			Year / Semester / Section	II / IV / A
Batch No.	251018	Date / Session	30/04/2024 / FN	Department	CSE
Course Code	CS3452	Course Title	Theory of computation		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	Dr. K. KARTHIKEYAN				30/4/24

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1		1	11		9			9
2		2	12					
3		1	13		8			8
4		2	14					
5		1	15		6			6
6		0	16					
7		1					Total	23
8		2						
9		2						
10		2						
Total		14	Grand Total		37		Name and Signature of the Examiner with	K. MOHANAPRIYA K. Mo 30/4/24

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Tota
Marks allotted		32	18				50
Marks Obtained		24	13				37

QAC Audit - Remarks

(G. SATHIYA - AP/IT)

Name and Signa of the QAC mem

Print Report

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of B.E. Computer Science Engineering

Internal Assessment - Attainment of Courses Outcomes (Through Direct Assessment)

Academic Period 2022 - 2023 / EVEN Semester			
COURSE CODE/TITLE	THEORY OF COMPUTATION	Batch	2021 - 2025
CLASS / SECTION	Sem 4 / CSE A & B		
COURSE COORDINATOR	Ms.J.Sathia Parkavi / Ms.K.Mohanappriya		

COURSE OUTCOME	1	2	3	4	5	6
TARGET	65	65	65	65	65	65

ATTAINMENT LEVEL

Level	Range
1	0-60% of the Students scored more than target
2	61-90% of the Students scored more than target
3	90% of the Students scored more than target

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			68	**32**						**64**	**36**						**40**	**28**	**32**		**40**						**108**	**96**	**76**	**28**	**32**	**0**
1	813821104001	AADHESH. D	28	6						36	28						28	8	14		40						68	42	56	8	14	
2	813821104002	AARTHI MAHALAKSHMI. V	56	18						56	36						38	26	24		40						96	74	74	26	24	
3	813821104003	ABARNA. T C	68	28						58	36						36	26	32		40						108	86	72	26	32	
4	813821104004	ABINAYA. B D	28	26						48	31						32	24	20		40						68	74	63	24	20	
5	813821104005	ABIRAMI. V	30	24						54	28						38	28	28		40						70	78	66	28	28	
6	813821104006	AGALYA. S	0	0						20	6						0	0	8		40						40	20	6	0	8	
7	813821104007	AGNES STEFFI. A	40	22						44	30						24	24	18		40						80	66	54	24	18	
8	813821104008	AKASH. S	34	26						48	20						28	20	20		40						74	74	48	20	20	
9	813821104009	AKSHAYA SHREE. S	20	6						54	10						20	12	14		40						60	60	30	12	14	
10	813821104010	ALAAGAMMAI. S	52	22						64	36						36	26	30		40						92	86	72	26	30	
11	813821104011	ALAN J JOHN	44	18						54	6						20	12	12		40						84	72	26	12	12	
12	813821104012	AMRISHKANNA. R	48	26						54	26						24	22	20		40						88	80	50	22	20	
13	813821104013	ARAVINDHAN. A	0	0						4	0						0	0	2		40						40	4	0	0	2	
14	813821104015	ASHLEY REBECCA. R	40	16						56	22						20	24	22		40						80	72	42	24	22	
15	813821104016	ASLIN. A	46	16						54	36						32	24	28		40						86	70	68	24	28	
16	813821104017	ATHITHYA. A	50	24						60	36						36	26	30		40						90	84	72	26	30	
17	813821104018	AVANTHIKA. M G	14	18						50	30						24	26	22		40						54	68	54	26	22	
18	813821104019	BARATH. B	64	22						50	26						36	26	30		40						104	72	62	26	30	
19	813821104020	BHUVANA. D	32	18						60	30						30	24	24		40						72	78	60	24	24	
20	813821104021	CAUVERY. R	40	26						60	36						32	24	26		40						80	86	68	24	26	
21	813821104022	CHAARUBHALA. S	48	26						58	30						30	28	26		40						88	84	60	28	26	
22	813821104023	DARWIN SHIYAM. B	36	0						48	6						20	18	4		40						76	48	26	18	4	
23	813821104024	DEEPIKA. D	58	28						60	36						36	24	28		40						98	88	72	24	28	
24	813821104025	DEEPIKA. S	64	28						60	36						38	26	28		40						104	88	74	26	28	
25	813821104026	DENITA. P	8	14						56	26						30	20	12		40						48	70	56	20	12	
26	813821104027	DHANENDRAN. S	60	30						60	28						36	26	30		40						100	90	64	26	30	
27	813821104028	DHANUSHAVARTHINI. S	64	18						60	28						34	28	30		40						104	78	62	28	30	
28	813821104029	DHARANIDHARAN. P	34	10						34	14						24	18	4		40						74	44	38	18	4	
29	813821104030	DHARSHNI. B	44	24						48	36						26	24	24		40						84	72	62	24	24	
30	813821104031	DHINESHKUMAR. S	0	2						0	0						0	0	2		40						40	2	0	0	2	
31	813821104032	DIVYA VAISHNAVI. V	62	32						58	32						32	24	24		40						102	90	64	24	24	
32	813821104033	ERAIARUL. K	16	8						26	14						28	24	16		40						56	34	42	24	16	
33	813821104034	ESWARA PANDIYAN. K	48	18						42	32						22	24	18		40						88	60	54	24	18	
34	813821104035	FARIYA RAHMATH. N	42	8						36	18						24	26	18		40						82	44	42	26	18	
35	813821104036	FRANCLIN. E	58	22						56	24						28	26	22		40						98	78	52	26	22	
36	813821104037	GAYATHRI. K	58	16						54	22						30	22	24		40						98	70	52	22	24	
37	813821104038	GAYATHRI. R	60	26						0	0						34	26	28		40						100	26	34	26	28	
38	813821104039	GAYATHRI DEVY. S	58	16						56	36						38	26	26		40						98	72	74	26	26	
39	813821104040	GOKUL. S	18	2						14	14						20	12	8		40						58	16	34	12	8	
40	813821104041	GOKULA KRISHNAN. S	56	28						56	26						24	16	20		40						96	84	50	16	20	
41	813821104042	GOPPYKRISHNA. M	60	18						54	6						34	18	22		40						100	72	40	18	22	
42	813821104043	GURULAKSHMI. S	60	30						64	28						38	26	30		40						100	94	66	26	30	
43	813821104044	HARIHARAN. T	46	12						46	22						12	24	22		40						86	58	34	24	22	
44	813821104045	HARIKARAN. M	52	24						50	30						28	26	24		40						92	74	58	26	24	
45	813821104046	HARINI. P R	62	26						58	31						30	28	24		40						102	84	61	28	24	
46	813821104047	HARI PRASATH. R B	38	20						58	30						22	20	22		40						78	78	52	20	22	
47	813821104048	JALANDHARA. A K	64	28						58	36						36	26	26		40						104	86	72	26	26	
48	813821104049	JANANI SAKTHIVEL. S	64	24						58	30						34	24	26		40						104	82	64	24	26	
49	813821104050	JANANI SHANMUGI. M A	50	28						58	36						38	28	28		40						90	86	74	28	28	
50	813821104051	JEMIMA GLADYS THANGAM. R	20	10						56	22						28	14	12		40						60	66	50	14	12	
51	813821104052	JOCELYN. A	64	20						62	32						34	26	22		40						104	82	66	26	22	

52	813821104053	JOHNSON. P	32	28						54	28						24	18	12		40					72	82	52	18	12
53	813821104054	KABILAN. N L	50	28						58	24						28	22	16		40					90	86	52	22	16
54	813821104055	KARTHICK. M	36	14						60	26						24	20	14		40					76	74	50	20	14
55	813821104056	KAUSIK. T	40	24						54	18						30	12	14		40					80	78	48	12	14
56	813821104057	KHRUSANTH. S	50	6						36	18						30	24	14		40					90	42	48	24	14
57	813821104058	KIRUTHIKA. K	54	30						56	36						36	26	28		40					94	86	72	26	28
58	813821104059	KISHORE KUMAR. M S	66	26						60	36						38	26	28		40					106	86	74	26	28
59	813821104060	MARCIA JAYSEE. J	32	18						46	24						30	20	18		40					72	64	54	20	18
60	813821104061	MOHAMED ABRAR. M	6	0						42	24						8	4	2		40					46	42	32	4	2
61	813821104062	MONISHA. J	60	32						56	32						30	24	28		40					100	88	62	24	28
62	813821104063	MOTHILAL. K	24	06						36	14						12	10	8		40					64	42	26	10	8
63	813821104064	NAGA SHARAVANESH. S	56	28						38	28						38	20	24		40					96	66	66	20	24
64	813821104065	NANDHINI. S	50	18						44	30						36	26	32		40					90	62	66	26	32
65	813821104066	NAVEEN. M V	52	6						50	24						8	0	10		40					92	56	32	0	10
66	813821104067	NAVEEN. P	60	30						50	34						38	26	20		40					100	80	72	26	20
67	813821104068	NAVIN. M	26	24						26	12						4	20	0		40					66	50	16	20	0
68	813821104069	PAVITHRA. S	32	20						42	16						8	20	16		40					72	62	24	20	16
69	813821104070	PRADEEP KUMAR. M	42	18						46	16						16	12	14		40					82	64	32	12	14
70	813821104071	PRAGADEESHWARAN. S	24	12						48	26						34	26	10		40					64	60	60	26	10
71	813821104072	PRAGADISWAR. R	44	26						48	24						0	0	0		40					84	74	24	0	0
72	813821104073	PRIYADHARSHNI. M	32	18						46	14						8	24	12		40					72	64	22	24	12
73	813821104074	PURUSOTH. K R	16	18						46	28						24	24	16		40					56	64	52	24	16
74	813821104075	RENEIL JOSHUA. S	42	24						50	30						38	26	28		40					82	74	68	26	28
75	813821104076	RENITA. P	32	18						50	18						26	26	28		40					72	68	44	26	28
76	813821104077	REVATHI. N	42	28						48	26						38	26	20		40					82	76	64	26	20
77	813821104078	RINOZ FATHIMA. J	66	30						58	34						38	26	32		40					106	88	72	26	32
78	813821104079	RIYAZ KHAN. K I	10	0						12	10						0	0	0		40					50	12	10	0	0
79	813821104080	ROSHINI. R	34	26						50	34						26	26	28		40					74	76	60	26	28
80	813821104081	SACHIDANANDAM. K	32	20						50	14						22	26	8		40					72	70	36	26	8
81	813821104082	SAICHARAN. P	34	18						40	28						4	8	18		40					74	58	32	8	18
82	813821104083	SAI PRASATH. S	38	12						30	20						12	10	0		40					78	42	32	10	0
83	813821104084	SAMUEL STEWART. M J	36	16						50	20						4	4	6		40					76	66	24	4	6
84	813821104085	SANAFAR FARHANA. S	36	16						54	24						28	22	16		40					76	70	52	22	16
85	813821104086	SANGEETHARASU. A	26	24						34	16						20	16	0		40					66	58	36	16	0
86	813821104087	SANTHOSH. S	30	22						60	30						38	26	28		40					70	82	68	26	28
87	813821104088	SETHUMADHAVAN. V	30	20						32	10						20	24	20		40					70	52	30	24	20
88	813821104089	SHAFRIN SHA. R S	38	20						44	22						28	18	18		40					78	64	50	18	18
89	813821104090	SHIVANI. M J	44	28						62	34						30	22	10		40					84	90	64	22	10
90	813821104091	SHIVANI. S	52	28						44	26						8	4	0		40					92	72	34	4	0
91	813821104092	SHRIJA. J	26	24						58	22						30	24	28		40					66	82	52	24	28
92	813821104093	SHWETHA. B	52	28						56	30						36	26	28		40					92	84	66	26	28
93	813821104094	SHYAM SUNDAR. K N	44	22						50	10						26	22	16		40					84	72	36	22	16
94	813821104095	SIVACHARAN. V	48	26						38	20						24	28	24		40					88	64	44	28	24
95	813821104096	SIVAKARTHIKEYAN. D	54	22						48	20						26	24	24		40					94	70	46	24	24
96	813821104097	SREE SUVETHA. G	60	30						60	34						36	26	32		40					100	90	70	26	32
97	813821104099	SRILEKHA. A	60	30						54	30						32	20	24		40					100	84	62	20	24
98	813821104100	SRIRAM. A	48	22						40	10						8	8	6		40					88	62	18	8	6
99	813821104101	SRIRAM. K R	16	0						36	14						8	18	2		40					56	36	22	18	2
100	813821104102	SUDARSAN. S	64	28						54	30						34	28	28		40					104	82	64	28	28
101	813821104103	SUJI. P	34	20						50	10						32	24	12		40					74	70	42	24	12
102	813821104104	SURENDRAN. B R	32	22						52	22						38	26	16		40					72	74	60	26	16
103	813821104105	SURIYA PRAKASH. M	12	0						4	6						4	8	4		40					52	4	10	8	4
104	813821104106	SURYAA. D	38	16						52	26						26	26	24		40					78	68	52	26	24
105	813821104107	SURYA PRAKASH. G	42	14						46	26						24	12	22		40					82	60	50	12	22
106	813821104108	SYED MASOOD. S	54	20						54	28						34	28	32		40					94	74	62	28	32
107	813821104109	TEJESHWAR. M	54	26						48	26						34	26	26		40					94	74	60	26	26
108	813821104110	THANZIA. Z	56	30						60	34						38	28	32		40					96	90	72	28	32
109	813821104111	THOLKAPPIYAN. M	40	22						44	20						4	22	4		40					80	66	24	22	4
110	813821104113	VAIRAVAN. M	38	22						50	20						28	28	22		40					78	72	48	28	22
111	813821104114	VARSHA. P	48	26						52	24						26	26	32		40					88	78	50	26	32
112	813821104115	VELVIZHI. V V	40	16						46	18						16	22	32		40					80	62	34	22	32
113	813821104116	VETRI SELVAN. S R	20	18						46	12						0	0	6		40					60	64	12	0	6
114	813821104117	VIGNESH. L	42	30						58	22						0	0	0		40					82	88	22	0	0
115	813821104118	VIGNESH. S	40	20						38	26						24	22	26		40					80	58	50	22	26
116	813821104119	VIGNESHWARAN. G	46	10						56	20						26	24	16		40					86	66	46	24	16
117	813821104120	VIJAY AADHITYA. A	20	0						18	16						4	4	0		40					60	18	20	4	0
118	813821104121	VIJAYA VARMAN. T	40	20						52	30						28	26	18		40					80	72	58	26	18
119	813821104122	VINITH. K	54	22						50	32						38	26	28		40					94	72	70	26	28

120	813821104123	VISHWA. N	32	28						46	24						24	18	16		40					72	74	48	18	16	
121	813821104124	VISNU PRIYAA. B	64	30						60	34						38	26	32		40					104	90	72	26	32	
122	813821104125	YUVARAJ. S	52	28						52	28						8	24	28		40					92	80	36	24	28	
123	813821104301	BHARATH. J B	26	24						26	14						12	8	0		40					66	50	26	8	0	
124	813821104302	GOPALAKRISHNAN. T	24	6						24	10						4	4	0		40					64	30	14	4	0	
125	813821104303	KUMARESAN. R	20	4						22	22						18	20	14		40					60	26	40	20	14	
126	813821104304	MOHAMED ASLAM. A	16	6						50	0						8	8	10		40					56	56	8	8	10	
127	813821104305	MOHAMED IJAS. F	2	0						10	8						4	8	0		40					42	10	12	8	0	
128	813821104306	PRAKASH. S	6	4						24	14						4	8	18		40					46	28	18	8	18	
129	813821104307	RANJITH. M	16	6						18	12						26	14	6		40					56	24	38	14	6	
130	813821104308	VIGNESH. K	34	22						10	4						10	18	8		40					74	32	14	18	8	
131	813821104501	VINISHA. G	42	26						40	24						28	8	14		40					82	66	52	8	14	
CO's Target Value																										70.20	62.40	49.40	18.20	20.80	0.0
No. of Student Secured above CO's Target value																										98	90	73	89	61	0
Percentage of Student Secured above Target																										74.81	68.70	55.73	67.94	46.56	0.0

H.O.D. (CSE)
Saranathan College of Engg.,
Trichirapalli - 620 012

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of B.E. Computer Science Engineering

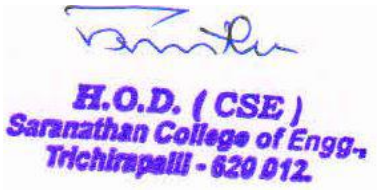
COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION

COURSE CODE/TITLE CS3452 THEORY OF COMPUTATION	Batch 2021 - 2025
CO Attainment Level: 1 - (0% - 60%) 2- (61%-90%) 3-(91% and Above)	

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
1	813821104001	AADHESH. D	A+
2	813821104002	AARTHI MAHALAKSHMI. V	A+
3	813821104003	ABARNA. T C	A
4	813821104004	ABINAYA. B D	B+
5	813821104005	ABIRAMI. V	A
6	813821104006	AGALYA. S	U
7	813821104007	AGNES STEFFI. A	B+
8	813821104008	AKASH. S	B+
9	813821104009	AKSHAYA SHREE. S	B+
10	813821104010	ALAAGAMMAI. S	A+
11	813821104011	ALAN J JOHN	B+
12	813821104012	AMRISHKANNA. R	A
13	813821104013	ARAVINDHAN. A	U
14	813821104015	ASHLEY REBECCA. R	A
15	813821104016	ASLIN. A	B+
16	813821104017	ATHITHYA. A	A+
17	813821104018	AVANTHIKA. M G	A
18	813821104019	BARATH. B	A+
19	813821104020	BHUVANA. D	A+
20	813821104021	CAUVERY. R	O
21	813821104022	CHAARUBHALA. S	O
22	813821104023	DARWIN SHIYAM. B	B+
23	813821104024	DEEPIKA. D	A
24	813821104025	DEEPIKA. S	A+
25	813821104026	DENITA. P	B+
26	813821104027	DHANENDRAN. S	A+
27	813821104028	DHANUSHAVARTHINI. S	A+
28	813821104029	DHARANIDHARAN. P	B+
29	813821104030	DHARSHNI. B	A
30	813821104031	DHINESHKUMAR. S	U
31	813821104032	DIVYA VAISHNAVI. V	A+
32	813821104033	ERAIARUL. K	B+
33	813821104034	ESWARA PANDIYAN. K	A+
34	813821104035	FARIYA RAHMATH. N	A
35	813821104036	FRANCLIN. E	O
36	813821104037	GAYATHRI. K	A+
37	813821104038	GAYATHRI. R	O
38	813821104039	GAYATHRI DEVY. S	A+
39	813821104040	GOKUL. S	B+
40	813821104041	GOKULA KRISHNAN. S	A
41	813821104042	GOPPYKRISHNA. M	A
42	813821104043	GURULAKSHMI. S	A
43	813821104044	HARIHARAN. T	B+
44	813821104045	HARIKARAN. M	B+
45	813821104046	HARINI. P R	B+
46	813821104047	HARI PRASATH. R B	B+
47	813821104048	JALANDHARA. A K	A+
48	813821104049	JANANI SAKTHIVEL. S	O
49	813821104050	JANANI SHANMUGI. M A	O
50	813821104051	JEMIMA GLADYS THANGAM. R	A
51	813821104052	JOCELYN. A	A+
52	813821104053	JOHNSON. P	A
53	813821104054	KABILAN. N L	B+
54	813821104055	KARTHICK. M	A
55	813821104056	KAUSIK. T	B+
56	813821104057	KHRUSANTH. S	B+
57	813821104058	KIRUTHIKA. K	A
58	813821104059	KISHORE KUMAR. M S	A+
59	813821104060	MARCIA JAYSEE. J	A
60	813821104061	MOHAMED ABRAR. M	B
61	813821104062	MONISHA. J	A+
62	813821104063	MOTHILAL. K	B
63	813821104064	NAGA SHARAVANESH. S	A+
64	813821104065	NANDHINI. S	B+

65	813821104066	NAVEEN. M V	A
66	813821104067	NAVEEN. P	O
67	813821104068	NAVIN. M	B
68	813821104069	PAVITHRA. S	B
69	813821104070	PRADEEP KUMAR. M	B+
70	813821104071	PRAGADEESHWARAN. S	A
71	813821104072	PRAGADISWAR. R	A
72	813821104073	PRIYADHARSHNI. M	B+
73	813821104074	PURUSOTH. K R	A
74	813821104075	RENEIL JOSHUA. S	A+
75	813821104076	RENITA. P	B+
76	813821104077	REVATHI. N	A
77	813821104078	RINOZ FATHIMA. J	A
78	813821104079	RIYAZ KHAN. K I	UA
79	813821104080	ROSHINI. R	A
80	813821104081	SACHIDANANDAM. K	B
81	813821104082	SAICHARAN. P	B
82	813821104083	SAI PRASATH. S	C
83	813821104084	SAMUEL STEWART. M J	A
84	813821104085	SANAFAR FARHANA. S	B+
85	813821104086	SANGEETHARASU. A	B+
86	813821104087	SANTHOSH. S	B+
87	813821104088	SETHUMADHAVAN. V	A
88	813821104089	SHAFRIN SHA. R S	A
89	813821104090	SHIVANI. M J	A+
90	813821104091	SHIVANI. S	A
91	813821104092	SHRIJA. J	A
92	813821104093	SHWETHA. B	A+
93	813821104094	SHYAM SUNDAR. K N	A
94	813821104095	SIVACHARAN. V	A+
95	813821104096	SIVAKARTHIKEYAN. D	A
96	813821104097	SREE SUVETHA. G	O
97	813821104099	SRILEKHA. A	A+
98	813821104100	SRIRAM. A	B+
99	813821104101	SRIRAM. K R	B+
100	813821104102	SUDARSAN. S	A+
101	813821104103	SUJI. P	A
102	813821104104	SURENDRAN. B R	A
103	813821104105	SURIYA PRAKASH. M	B
104	813821104106	SURYAA. D	A
105	813821104107	SURYA PRAKASH. G	B+
106	813821104108	SYED MASOOD. S	A+
107	813821104109	TEJESHWAR. M	A
108	813821104110	THANZIA. Z	O
109	813821104111	THOLKAPPIYAN. M	B+
110	813821104113	VAIRAVAN. M	A
111	813821104114	VARSHA. P	B+
112	813821104115	VELVIZHI. V V	B+
113	813821104116	VETRI SELVAN. S R	B+
114	813821104117	VIGNESH. L	A
115	813821104118	VIGNESH. S	B+
116	813821104119	VIGNESHWARAN. G	A+
117	813821104120	VIJAY AADHITYA. A	B
118	813821104121	VIJAYA VARMAN. T	A+
119	813821104122	VINITH. K	A+
120	813821104123	VISHWA. N	B
121	813821104124	VISNU PRIYAA. B	A+
122	813821104125	YUVARAJ. S	B+
123	813821104301	BHARATH. J B	A
124	813821104302	GOPALAKRISHNAN. T	B
125	813821104303	KUMARESAN. R	B+
126	813821104304	MOHAMED ASLAM. A	B+
127	813821104305	MOHAMED IJAS. F	B
128	813821104306	PRAKASH. S	B
129	813821104307	RANJITH. M	B+
130	813821104308	VIGNESH. K	A
131	813821104501	VINISHA. G	A
No. of S/O(R21) Grade			9
No. of A/A+(R21) Grade			29
No. of B/A(R21) Grade			39
No. of C/B+(R21) Grade			37

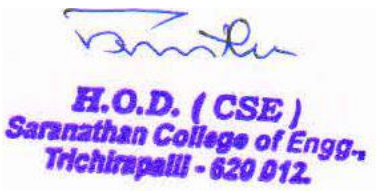
No. of D/B(R21) Grade	12
No. of E/C(R21) Grade	1
Target for course outcome Attainment	65
No of students above the target	114
CO-Attainment University	87.00



CO	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO-UNI) (Avg. Attainment of All section) (%)	Direct CO Attainment (0.40xCO-INT + 0.60xCO-UNI) (%)	Indirect CO Attainment (Course End Survey)	Over all CO Attainment (0.8xDirect + 0.2xIndirect) (%)	Over all CO Attainment Level
C210.1	74.81	87.00	82.12	83.21	82.34	2
C210.2	68.70	87.00	79.68	87.28	81.20	2
C210.3	55.73	87.00	74.49	82.70	76.13	2
C210.4	67.94	87.00	79.38	83.21	80.14	2
C210.5	46.56	87.00	70.83	83.97	73.45	2
C210.6	0.00	87.00	52.20	81.93	58.15	1

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C210.1	1	3	2	3					1	1	2	3	1	3	2
C210.2	2	2	3	2	1				3	3	2	3	3	1	2
C210.3	2	2	3	2	1				1	3	1	2	1	2	2
C210.4	2	2	2	1					1	3	3	2	1	3	2
C210.5	2	2	2	1	1				1	1	3	2	3	1	3
C210.6	2	2	2	2					1	1	2	2	1	1	2
C210	1.83	2.17	2.33	1.83	0.50				1.33	2.00	2.17	2.33	1.67	1.83	2.17

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C210.1	0.67	2.00	1.33	2.00					0.67	0.67	1.33	2.00	0.67	2.00	1.33
C210.2	1.33	1.33	2.00	1.33	0.67				2.00	2.00	1.33	2.00	2.00	0.67	1.33
C210.3	1.33	1.33	2.00	1.33	0.67				0.67	2.00	0.67	1.33	0.67	1.33	1.33
C210.4	1.33	1.33	1.33	0.67					0.67	2.00	2.00	1.33	0.67	2.00	1.33
C210.5	1.33	1.33	1.33	0.67	0.67				0.67	0.67	2.00	1.33	2.00	0.67	2.00
C210.6	0.67	0.67	0.67	0.67					0.33	0.33	0.67	0.67	0.33	0.33	0.67
C210	1.11	1.33	1.44	1.11	0.33				0.83	1.28	1.33	1.44	1.06	1.17	1.33



Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

(Artificial Intelligence and Machine Learning)

C1.2.1

IA TEST CIRCULAR AND SCHEDULE

Academic Year 2023–2024 Odd Semester

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Second Year FIRST IA TEST FOR I AND II Year _October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.23.11.2023

Circular

Internal Assessment **Test – 2** for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 27.11.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – FIRST HOUR

11.50 a.m. – 12.45 p.m. – SECOND HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21.12.2023

Circular

Internal Assessment Test – 3 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 26.12.2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – **FIRST HOUR**

11.50 a.m. – 12.45 p.m. – **SECOND HOUR**

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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21/12/23

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

THIRD IA TEST FOR II Year _December 2023

S.No.	1	2	3	4	5	6
Date	26-Dec-23	27-Dec-23	28-Dec-23	30-Dec-23	02-Jan-24	03-Jan-24
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	MA3355 -Random Processes and Linear Algebra	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	EI3354 - Linear Integrated Circuits and Applications	CS3353 - C Programming and Data Structures	EI3351 - Analog Electronics
Mech.,	ME3393 - Manufacturing Processes	ME3351 - Engineering Mechanics	MA3351 - Transforms and Partial Differential Equations	ME3391 - Engineering Thermodynamics	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery
CIVIL	CE3303 - Water Supply and Wastewater Engineering	CE3302 - Construction Materials and Technology	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence and Machine Learning)

C1.2.1

IA TEST QUESTION PAPERS

Academic Year 2023–2024 Odd Semester

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirappalli - 620012

Internal Assessment Test - II			Date / Session	29.11.2023 / FN	Marks	50
Course code	CS3352	Course Title	FOUNDATIONS OF DATA SCIENCE			
Batch No.		Duration	90 Mins	Academic Year	2023-2024 / ODD	
Year	II	Semester	III / A & B	Department	CSE & CSE(AIML)	

Part – A (Answer all the questions 10 x 2 = 20Marks)

Q. No.	Questions	CO	Skills
1.	Define range with an example.	C203.2	U
2.	Computation and definition formula for Sum of Squares.	C203.2	R
3.	Calculate IQR for 7, 9, 9, 10, 11, 11, 13.	C203.2	A
4.	Define Z-Score.	C203.2	R
5.	What is regression?	C203.3	U
6.	Write a python program for constructing a scatter plot of your own dataset (10 Values).	C203.3	R
7.	Define Outliers in dataset.	C203.3	A
8.	What is a regression line?	C203.3	R
9.	Illustrate on regression towards mean.	C203.3	A
10.	Given values of SSy=80, r =0.80. Find Sy/x. or estimate error.	C203.3	U

Part – B (Answer all the questions 2 x 10 = 20Marks)

Q. No.	Questions	CO	Skills
11.	The day absent from school for a sample of 10 first grade children are given below: **8 5 7 1 4 0 5 7 2 9** (i) Calculate Variance(5) (ii) Calculate Standard Deviation(5)	C203.2	AZ
	Or		
12.	For the given data below calculate the Z-Score Normalization. 3, 5, 5, 8, 9, 12, 12, 13, 15, 16, 17, 19, 22, 24, 25, 134	C203.2	A
13.	Calculate the correlation coefficient for heights in "inches" of father(x) and their son(y) with the data presented below : **x: 66 68 68 70 71 72 72** **y: 68 70 69 72 72 72 74**	C203.3	R
	Or		
14.	The values of x and their corresponding values of y are given below: (i) Calculate y=ax+b (ii) Estimate the value of y when x=10. **x: 0.5 1.5 2.5 3.5 4.5 5.5 6.5** **y: 2.5 3.5 5.5 4.5 6.5 8.5 10.5**	C203.3	U / R

Part – C (Answer all the questions 1 x 10 = 10Marks)

Q. No.	Questions	CO	Skills
15.	Given below the values of x1, x2 and y. Calculate the multiple regression line equation. Also calculate the deviation value. **x1: 60 62 67 70 71 72 75 78** **x2: 22 25 24 20 15 14 14 11** **y: 140 155 159 179 192 200 212 215**	C203.3	AZ
	Or		
16.	Let us find out the relation between the variables x1, x2, x3, y. Calculate multiple regression line equation. **x1: 0.94 1.13 0.61 1.17 0.93 1.94 2.12 1.03 0.67 0.78** **x2: 4.22 3.48 2.20 2.20 2.25 2.45 2.62 2.97 2.90 2.64** **x3: 1.58 1.28 0.64 0.08 0.38 1.45 2.31 3.60 2.59 1.62** **y: 8.23 8.26 9.33 8.92 8.89 8.34 8.51 9.15 9.40 9.01**	C203.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: R. Karthik / CSE / A Sec, Mr. B.Rethinakumar / CSE / B Sec, Mr. P. B. Arunprasad / CSE(AIML)

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirappalli - 620012

Internal Assessment Test - III			Date / Session	28.12.2023 / FN	Marks	50
Course code	CS3352	Course Title	FOUNDATIONS OF DATA SCIENCE			
Batch No.		Duration	90 Mins	Academic Year	2023-2024 / ODD	
Year	II	Semester	III / A & B	Department	CSE & CSE(AIML)	

Part – A (Answer all the questions 10 x 2 = 20Marks)

Q. No.	Questions	CO	Skills
1.	State the advantages of using Numpy arrays.	C203.4	U
2.	Outline the two types of Numpy's UFuncs.	C203.4	R
3.	Difference between loc and iloc.	C203.4	A
4.	State the possible options in IPython notebook used to embed graphs directly in the notebook	C203.5	A
5.	What is visualization error?	C203.5	R
6.	How plt.scatter() differs from plot.plot()?	C203.6	A
7.	What is 3D plotting?	C203.6	R
8.	List out the different types of projection in Map.	C203.6	R
9.	What is usage of seaborn in python visualization?	C203.6	R
10.	What is the purpose of Basemap function?	C203.6	U

Part – B (Answer all the questions 2 x 10 = 20Marks)

Q. No.	Questions	CO	Skills
11.	What is an aggregate function? Write a python program to perform aggregate functions using Numpy.	C203.4	C
	Or		
12.	Define fancy indexing and masking. Elaborately write a python program to implement fancy indexing and masking.	C203.4	C
13.	Explain Aggregation and Grouping with sample python prompts.	C203.4	AZ / C
	Or		
14.	Construct the pivot table for diabetes dataset with shape (768, 9), using age as index value with 10 sample records.	C203.4	C

Part – C (Answer all the questions 1 x 10 = 10Marks)

Q. No.	Questions	CO	Skills
15.	a)Write a python program to plot data using density and contour plotting (6M) b)Write a python program to plot data and draw normal curve(4M)	C203.5	C
	Or		
16.	a)Write a python program to draw histogram with colors and their legends(10M)	C203.5	C

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: R. Karthik / CSE / A Sec, Mr. B.Rethinakumar / CSE / B Sec, Mr. P. B. Arunprasad / CSE(AIML)

Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence and Machine Learning)

C1.2.1

ANSWER PAPERS

Academic Year 2023–2024 Odd Semester

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	Ranga Priya.A			Year / Semester / Section	II / III / A
Batch No.	251232	Date / Session	30-11-23 / FN	Department	AI&ML
Course Code	CS3352	Course Title	Foundations of Data Science.		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	G. Nithyalakshmi	G. Nithya 30/11/23			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	8			8
2	✓	2	12					
3	✓	0	13	✓	10			10
4	✓	2	14					
5	✓	2	15	✓	10			10
6	✓	0	16					
7	✓	2					Total	28
8	✓	0						
9	✓	0						
10	✓	2						
Total		12	40 Grand Total				P.B. ARUN PRASAD 30/11/2023 Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		16/36	32/64				50/100
Marks Obtained		14/28	26/52				80

QAC Audit - Remarks

NIL

D. Bhuvaneswari 20/12/2023

J. BOOBACA MURALITHARAN

Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	Meenakshi Sekarkumar			Year / Semester / Section	II / III
Batch No.	251224	Date / Session	30-11-2023	Department	AIML
Course Code	CS3352	Course Title	Foundations of Data Science		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	G. Vithyalakshmi	G. Vithy 30/11/23			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✓	Marks	Q. NO.	✓	(a) Marks	✓	(b) Marks	
1		2	11		10			10
2		2	12					
3		2	13					
4		2	14		7			7
5		1	15		6			6
6		0	16					
7		1					Total	23
8		1						
9		0						
10		2						
Total		13	Grand Total		36			

P.B. ARUN PRASAD 30/11/2023
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		18/36	32/64				50/100
Marks Obtained		18/36	18/36				72

QAC Audit - Remarks

NIL

J. Boobala 20/12/2023

J. BOOBALA MURALITHARAN

Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	N. Sanjith			Year / Semester / Section	II / III / A
Batch No.	2510035	Date / Session	01.11.2023	Department	CSE (AIML)
Course Code	CS3352	Course Title	Foundation of Datascience		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 20
Name and Signature of the Invigilator with date	A. SHEELAVATHI A.		1/11/23		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	10			10
2	✓	2	12					
3	✓	2	13					
4	✓	0	14	✓	10			10
5	✓	0	15	✓	4		6	10
6	✓	2	16					
7	✓	2					Total	30
8	✓	0						
9	✓	0						
10	✓	1						
Total		11	Grand Total		41			

P. B. ARUN PRASAD 3/11/2023
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	22 / 44	28 / 56					50 / 100
Marks Obtained	18 / 36	23 / 46					82

QAC Audit - Remarks

— NIL —

D. Ambalavanan 22/11/2023

D. BOOBACA MUBARAKATHARAM
Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	S. ANJANA			Year / Semester / Section	II / III
Batch No.	251206	Date / Session	29/11/23 / FN	Department	AIML
Course Code	CS3352	Course Title	FOUNDATIONS OF DATA SCIENCE		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	M. Thanuja	30/11/23			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✓	Marks	Q. NO.	✓	(a) Marks	✓	(b) Marks	
1		2	11					
2		2	12		2			2
3		0	13					
4		2	14		3			3
5		1	15		3			3
6		0	16					
7		1					Total	8
8		0						
9		1						
10		2						
Total		11						

19
Grand Total

P.B. ARUN PRASAD 30/11/2023
Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		18/34	32/66				50/100
Marks Obtained		8/16	11/22				38

QAC Audit - Remarks

NIL

J. Boobalamuthu 20/12/2023
J. BOOBALA MURALSTHARAN
Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	Anitha Srinithi. S.			Year / Semester / Section	II / III
Batch No.	251205	Date / Session	28/12/23/FN	Department	AIML
Course Code	CS3352	Course Title	Foundation of Data Science.		
Internal Assessment Test	I ☐	II ☐	III ☑	Model ☐	No. of pages used : 20
Name and Signature of the Invigilator with date	K. AMARNATH	K. A 28/12/23			

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✓	Marks	Q. NO.	✓	(a) Marks	✓	(b) Marks	
1	✓	2	11	✓	10			10
2	✓	2	12					
3	✓	2	13	✓	5		5	10
4	✓	1	14					
5	✓	2	15	✓	9			9
6	✓	2	16					
7	✓	1					Total	29
8	✓	2						
9	✓	2						
10	✓	2						
Total		18	Grand Total 47				Name and Signature of the Examiner with date	P.B. ARUN PRASAD 29/12/2023

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted				29/56	16/32	6/12	50/100
Marks Obtained				27/54	14/28	6/12	94/100

QAC Audit - Remarks

NIL

D. Subha 28/12/2023

D. SUBHA MUKALIYAMAN

Name and Signature of the QAC member

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Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence and Machine Learning)

C1.2.1

IA TEST MARK STATEMENT

Academic Year 2023–2024 Odd Semester

select cytest,cytest_desc,b.testdate,to_char(b.testdate,'dd/mm/yyyy') from cycletest_master a,cycletest_log b where a.cytest_code = b.cytest and b.semperiod = '23-24ODD' AND B.BRANCH = 'CSE(AIML)' AND B.BRANCH = 'CSE(AIML)' and b.sem ='3' and b.sec = 'A' AND b.subcode ='CS3352' ORDER BY 3

Subject Wise Internal Assessment Tests Mark Report

Class:CSE(AIML) Semester:3 Section:A **Subject Code:CS3352 Title : FOUNDATIONS OF DATA SCIENCE Subject Handled by: arunprasad-cse**

S.no	Regno	Batchno	Name	Quota	Arrearcount	CGPA	IATEST-A1 01/11/2023	IATEST-Z2	IATEST-Z1	IATEST-A2	IATEST-A3	Ho Ab
1	813822148001	251201	AATHISH. S	GQ	NIL	7.8333	62			58	70	
2	813822148002	251202	ABINASH. E	GQ	1	*	50			52	64	
3	813822148003	251203	ABIRAAMI. S	GQ	NIL	8.4091	62			76	A	
4	813822148004	251204	AISHWARYA LAKSHMI. S V	GQ	NIL	8.9242	92			98	84	
5	813822148005	251205	ANITHA SRINITHI. S	MQ	NIL	8.2475	70			62	94	
6	813822148006	251206	ANJANA. S	GQ	NIL	8.5606	80			38	82	
7	813822148008	251208	ASHWINRAJ. R	GQ	6	*	38			30	20	
8	813822148010	251210	BARANIDHARAN. S	GQ	NIL	7.5202	34			42	50	
9	813822148011	251211	CLARIBEL HERMIA. P	GQ	NIL	7.9798	58			70	52	
10	813822148012	251212	DHARSHINI. R	GQ	NIL	9.4697	94			98	98	
11	813822148013	251213	DHYANESH. D	MQ	2	*	50			42	52	
12	813822148014	251214	GAYATHRI. R	GQ	NIL	8.399	74			64	82	
13	813822148015	251215	GNANASOUNTHAR. A	GQ	3	*	40			50	A	
14	813822148016	251216	GOKUL SHYAM. B	GQ	NIL	8.1263	62			62	58	
15	813822148017	251217	HARIHARAN. M	GQ	NIL	7.7727	50			22	74	
16	813822148018	251218	HARINI. N	MQ	NIL	8.0606	62			42	64	
17	813822148019	251219	HARISH RAAGHAV. V	MQ	NIL	7.6768	54			62	36	
18	813822148020	251220	HINGSLY PRIYA. R	GQ	NIL	8.1768	82			88	76	
19	813822148021	251222	KEERTHANA. K	GQ	NIL	8.8283	84			96	78	
20	813822148022	251223	KIRAN KUMAR. B	MQ	NIL	8.1465	52			80	72	
21	813822148023	251224	MEENAKSHI. S	MQ	NIL	8.5101	A			72	82	
22	813822148024	251225	MEHANETHRA. K G	MQ	NIL	8.4192	64			76	64	
23	813822148025	251226	MUTHU KRISHNAN. R	GQ	NIL	7.6162	62			56	54	
24	813822148026	251227	NANDAKUMARAN. C	GQ	3	*	30			54	42	
25	813822148027	251228	PAVITHRA. B	GQ	NIL	8.5758	66			72	80	
26	813822148028	251229	RAGAVAN. K	GQ	NIL	8.8687	78			98	80	
27	813822148030	251231	RAHUL CHANDRAN RENGARAJ	GQ	NIL	7.9242	68			78	62	
28	813822148031	251232	RANGA PRIYA. A	MQ	NIL	8.4394	82			80	72	
29	813822148032	251233	SABARIESWAR. S A	GQ	1	*	56			80	66	
30	813822148033	251234	SANDEEP PRAKASH. R	GQ	NIL	8.2222	76			90	68	
31	813822148034	251235	SANJITH N	GQ	NIL	8.2475	82			58	82	
32	813822148035	251236	SANKARANARAYANAN. M	GQ	NIL	8.2273	88			86	72	
33	813822148036	251237	SANTHOSH. P	GQ	NIL	7.7626	66			54	66	
34	813822148037	251238	SHARINI. R	GQ	5	*	16			50	20	
35	813822148038	251239	SHIRIN. J	GQ	NIL	8.2273	58			64	62	
36	813822148039	251240	SHRI HARISH. S	MQ	1	*	66			64	80	
37	813822148040	251241	SIVAKUMAR. B	MQ	1	*	80			84	74	

38	813822148041	251242	SIVARANJANI. R	GQ	NIL	8.2778	82			62	80	
39	813822148042	251243	SOWMIYA. K	MQ	NIL	8.303	64			60	56	
40	813822148043	251244	SOWNTHARYA. M	GQ	NIL	8.2121	86			46	66	
41	813822148044	251245	SRINIDHI. K	GQ	NIL	8.8081	84			90	90	
42	813822148046	251246	SUDHARSAN. R N	GQ	NIL	8.404	62			64	42	
43	813822148047	251247	SUSHMITHA. E K	MQ	NIL	7.9444	40			30	62	
44	813822148048	251248	SWEATHA. S	MQ	NIL	7.7778	68			46	36	
45	813822148049	251249	THAARANI. R	GQ	NIL	7.8434	58			70	A	
46	813822148050	251250	TISHYA SHINY. J	MQ	NIL	8.7727	78			68	76	
47	813822148051	251251	UGIN VENASA. J	MQ	NIL	7.7828	66			64	52	
48	813822148052	251252	VASANTH. D	MQ	1	*	46			50	38	
49	813822148053	251253	VIDHYA. N	GQ	NIL	8.399	78			92	78	
50	813822148054	251254	VIGNESH. M	MQ	10	*	A			A	36	
51	813822148055	251255	VINCY VICTORIYA. S	MQ	NIL	8.3081	94			88	68	
52	813822148056	251256	VISSHALPRASATH. M	MQ	NIL	8.1616	58			78	54	
53	813822148057	251257	YOGA. A	GQ	1	*	66			46	46	
54	813822148058	251258	YUVARAJ. S	MQ	4	*	50			18	50	
55	813822148045	251259	SRINITHI. A	MQ	NIL	8.7828	88			88	86	
56	813822148301	251260	MANI SHANKAR. U	GQ	NIL	8.19	62			60	62	

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of First Year

Internal Assessment - Attainment of Courses Outcomes (Through Direct Assessment)

Academic Period 2023 - 2024 / ODD Semester			
COURSE CODE/TITLE	CS3351 DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION	Batch	2022 - 2026
CLASS / SECTION	Sem 3 / CSE(AIML)	COURSE OUTCOME 1 2 3 4 5 6 / TARGET 65 65 65 65 65 65	
COURSE COORDINATOR	Dr.M.Padmapriya		

ATTAINMENT LEVEL

Level	Range
1	0-60% of the Students scored more than target
2	61-90% of the Students scored more than target
3	91% of the Students scored more than target

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			60	**40**							**56**	**44**						**40**	**40**	**20**	**20**	**20**					**80**	**60**	**56**	**84**	**40**	**20**
1	813822148001	AATHISH. S	28	26							14	16						14	4	14	20	20					48	46	14	30	4	14
2	813822148002	ABINASH. E	18	14							36	34						22	18	12	20	20					38	34	36	56	18	12
3	813822148003	ABIRAAMI. S	54	14							52	42						36	22	12	20	20					74	34	52	78	22	12
4	813822148004	AISHWARYA LAKSHMI. S V	58	32							52	24						38	34	18	20	20					78	52	52	62	34	18
5	813822148005	ANITHA SRINITHI. S	38	28							34	38						38	26	12	20	20					58	48	34	76	26	12
6	813822148006	ANJANA. S	22	28							50	36						24	24	16	20	20					42	48	50	60	24	16
7	813822148008	ASHWINRAJ. R	20	12							8	18						18	8	6	20	20					40	32	8	36	8	6
8	813822148010	BARANIDHARAN. S	12	4							28	26						20	12	4	20	20					32	24	28	46	12	4
9	813822148011	CLARIBEL HERMIA. P	14	16							26	38						34	26	14	20	20					34	36	26	72	26	14
10	813822148012	DHARSHINI. R	56	28							56	38						38	38	18	20	20					76	48	56	76	38	18
11	813822148013	DHYANESH. D	28	0							24	34						12	14	4	20	20					48	20	24	46	14	4
12	813822148014	GAYATHRI. R	30	6							48	38						38	34	18	20	20					50	26	48	76	34	18
13	813822148015	GNANASOUNTHAR. A	22	0							10	22						10	16	16	20	20					42	20	10	32	16	16
14	813822148016	GOKUL SHYAM. B	0	10							26	34						14	30	18	20	20					20	30	26	48	30	18
15	813822148017	HARIHARAN. M	24	10							22	28						30	16	12	20	20					44	30	22	58	16	12
16	813822148018	HARINI. N	28	18							48	32						18	18	14	20	20					48	38	48	50	18	14
17	813822148019	HARISH RAAGHAV. V	4	14							42	30						22	22	16	20	20					24	34	42	52	22	16
18	813822148020	HINGSLY PRIYA. R	42	30							46	36						34	26	14	20	20					62	50	46	70	26	14

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			60	**40**							**56**	**44**						**40**	**40**	**20**	**20**	**20**					**80**	**60**	**56**	**84**	**40**	**20**
19	813822148021	KEERTHANA. K	52	26							38	42						38	38	18	20	20					72	46	38	80	38	18
20	813822148022	KIRAN KUMAR. B	42	14							34	40						24	20	16	20	20					62	34	34	64	20	16
21	813822148023	MEENAKSHI. S	52	18							56	38						38	38	12	20	20					72	38	56	76	38	12
22	813822148024	MEHANETHRA. K G	28	18							52	42						34	32	18	20	20					48	38	52	76	32	18
23	813822148025	MUTHU KRISHNAN. R	32	0							30	20						28	20	10	20	20					52	20	30	48	20	10
24	813822148026	NANDAKUMARAN. C	12	6							10	16						22	22	6	20	20					32	26	10	38	22	6
25	813822148027	PAVITHRA. B	56	22							56	38						38	30	14	20	20					76	42	56	76	30	14
26	813822148028	RAGAVAN. K	58	38							56	34						34	34	12	20	20					78	58	56	68	34	12
27	813822148030	RAHUL CHANDRAN RENGARAJ	52	28							18	36						20	30	6	20	20					72	48	18	56	30	6
28	813822148031	RANGA PRIYA. A	48	24							52	30						34	28	14	20	20					68	44	52	64	28	14
29	813822148032	SABARIESWAR. S A	36	24							44	38						26	32	16	20	20					56	44	44	64	32	16
30	813822148033	SANDEEP PRAKASH. R	38	18							46	38						30	20	0	20	20					58	38	46	68	20	0
31	813822148034	SANJITH N	34	12							44	34						24	32	18	20	20					54	32	44	58	32	18
32	813822148035	SANKARANARAYANAN. M	30	20							40	24						22	20	12	20	20					50	40	40	46	20	12
33	813822148036	SANTHOSH. P	8	16							30	22						4	14	12	20	20					28	36	30	26	14	12
34	813822148037	SHARINI. R	12	10							16	14						12	8	0	20	20					32	30	16	26	8	0
35	813822148038	SHIRIN. J	18	12							32	42						20	34	18	20	20					38	32	32	62	34	18
36	813822148039	SHRI HARISH. S	8	30							10	18						16	16	4	20	20					28	50	10	34	16	4
37	813822148040	SIVAKUMAR. B	40	28							30	34						34	24	14	20	20					60	48	30	68	24	14
38	813822148041	SIVARANJANI. R	32	24							48	22						34	36	14	20	20					52	44	48	56	36	14
39	813822148042	SOWMIYA. K	22	14							32	44						26	26	4	20	20					42	34	32	70	26	4
40	813822148043	SOWNTHARYA. M	30	20							36	24						16	24	12	20	20					50	40	36	40	24	12
41	813822148044	SRINIDHI. K	54	36							42	34						34	32	18	20	20					74	56	42	68	32	18
42	813822148045	SRINITHI. A	46	28							52	42						36	40	16	20	20					66	48	52	78	40	16
43	813822148046	SUDHARSAN. R N	38	4							32	34						26	24	0	20	20					58	24	32	60	24	0
44	813822148047	SUSHMITHA. E K	34	18							44	36						26	22	16	20	20					54	38	44	62	22	16
45	813822148048	SWEATHA. S	16	18							40	26						38	38	16	20	20					36	38	40	64	38	16

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			60	**40**							**56**	**44**						**40**	**40**	**20**	**20**	**20**					**80**	**60**	**56**	**84**	**40**	**20**
46	813822148049	THAARANI. R	20	24							40	36						0	0	0	20	20					40	44	40	36	0	0
47	813822148050	TISHYA SHINY. J	46	26							56	28						39	33	14	20	20					66	46	56	67	33	14
48	813822148051	UGIN VENASA. J	22	12							28	22						26	18	0	20	20					42	32	28	48	18	0
49	813822148052	VASANTH. D	34	18							18	14						14	8	0	20	20					54	38	18	28	8	0
50	813822148053	VIDHYA. N	28	22							32	28						28	32	14	20	20					48	42	32	56	32	14
51	813822148054	VIGNESH. M	0	0							4	8						0	18	0	20	20					20	20	4	8	18	0
52	813822148055	VINCY VICTORIYA. S	26	26							44	32						34	30	4	20	20					46	46	44	66	30	4
53	813822148056	VISSHALPRASATH. M	36	30							44	36						26	32	4	20	20					56	50	44	62	32	4
54	813822148057	YOGA. A	42	18							40	28						14	18	0	20	20					62	38	40	42	18	0
55	813822148058	YUVARAJ. S	16	4							4	30						12	12	4	20	20					36	24	4	42	12	4
56	813822148301	MANI SHANKAR. U	26	26							56	28						26	38	0	20	20					46	46	56	54	38	0
CO's Target Value																											52.00	39.00	36.40	54.60	26.00	13.00
No. of Student Secured above CO's Target value																											24	25	29	34	23	27
Percentage of Student Secured above Target																											42.86	44.64	51.79	60.71	41.07	48.21

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of First Year

COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION

Academic Period 2023 - 2024 / ODD Semester			
COURSE CODE/TITLE	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION	Batch	2022 - 2026
CO Attainment Level: 1 - (0% - 60%) 2- (61%-89%) 3-(91% and Above)			

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
1	813822148001	AATHISH. S	A
2	813822148002	ABINASH. E	A
3	813822148003	ABIRAAMI. S	A
4	813822148004	AISHWARYA LAKSHMI. S V	A
5	813822148005	ANITHA SRINITHI. S	A
6	813822148006	ANJANA. S	A
7	813822148008	ASHWINRAJ. R	B+
8	813822148010	BARANIDHARAN. S	B+
9	813822148011	CLARIBEL HERMIA. P	A
10	813822148012	DHARSHINI. R	A+
11	813822148013	DHYANESH. D	B+
12	813822148014	GAYATHRI. R	A
13	813822148015	GNANASOUNTHAR. A	B+
14	813822148016	GOKUL SHYAM. B	A
15	813822148017	HARIHARAN. M	B+
16	813822148018	HARINI. N	A
17	813822148019	HARISH RAAGHAV. V	B+
18	813822148020	HINGSLY PRIYA. R	A
19	813822148021	KEERTHANA. K	A
20	813822148022	KIRAN KUMAR. B	A
21	813822148023	MEENAKSHI. S	A
22	813822148024	MEHANETHRA. K G	A
23	813822148025	MUTHU KRISHNAN. R	A
24	813822148026	NANDAKUMARAN. C	B+
25	813822148027	PAVITHRA. B	A
26	813822148028	RAGAVAN. K	A+

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
27	813822148030	RAHUL CHANDRAN RENGARAJ	A
28	813822148031	RANGA PRIYA. A	A
29	813822148032	SABARIESWAR. S A	A
30	813822148033	SANDEEP PRAKASH. R	A
31	813822148034	SANJITH N	A
32	813822148035	SANKARANARAYANAN. M	A
33	813822148036	SANTHOSH. P	B+
34	813822148037	SHARINI. R	B+
35	813822148038	SHIRIN. J	A
36	813822148039	SHRI HARISH. S	B+
37	813822148040	SIVAKUMAR. B	A
38	813822148041	SIVARANJANI. R	A
39	813822148042	SOWMIYA. K	A
40	813822148043	SOWNTHARYA. M	A
41	813822148044	SRINIDHI. K	A
42	813822148045	SRINITHI. A	A
43	813822148046	SUDHARSAN. R N	A
44	813822148047	SUSHMITHA. E K	A
45	813822148048	SWEATHA. S	A
46	813822148049	THAARANI. R	A
47	813822148050	TISHYA SHINY. J	A
48	813822148051	UGIN VENASA. J	A
49	813822148052	VASANTH. D	B+
50	813822148053	VIDHYA. N	A
51	813822148054	VIGNESH. M	B+
52	813822148055	VINCY VICTORIYA. S	A
53	813822148056	VISSHALPRASATH. M	A

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
54	813822148057	YOGA. A	A
55	813822148058	YUVARAJ. S	B+
56	813822148301	MANI SHANKAR. U	A
No. of S/O Grade			0
No. of A/A+ Grade			2
No. of B/A Grade			41
No. of C/B+ Grade			13
No. of D/B Grade			0
No. of E/B Grade			0
Target for course outcome Attainment			65
No of students above the target			56
CO-Attainment University			100.00

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012
Programme: **First Year**
Overall Attainment Sheet – POs & PSOs attainment calculation
AcademicYear : 2023-24ODD

COURSE CODE/TITLE:**CS3351 DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION**:COURSE COORDINATOR:**Dr.M.Padmapriya** Batch:2022 - 2026 **Sem:3 CO Attainment Level: 1 - (0% - 60%) 2- (61%-89%) 3-(91% and Above)**

CO	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO-UNI) (Avg. Attainment of All section) (%)	Direct CO Attainment (0.40xCO-INT + 0.60xCO-UNI) (%)	Indirect CO Attainment (Course End Survey)	Over all CO Attainment (0.8xDirect + 0.2xIndirect) (%)	Over all CO Attainment Level
C203.1	42.86	100.00	77.14	76.79	77.07	2
C203.2	44.64	100.00	77.86	77.38	77.76	2
C203.3	51.79	100.00	80.71	79.76	80.52	2
C203.4	60.71	100.00	84.29	76.79	82.79	2
C203.5	41.07	100.00	76.43	79.76	77.09	2
C203.6	48.21	100.00	79.29	75.00	78.43	2

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C203.1	3	2	2	1								1	1	1	
C203.2	3	2	2	1								1	1	1	
C203.3	3	2	2	1								1	1	1	
C203.4	3	2	2	1	1							1	1	1	
C203.5	3	2	2	1								1	1	1	
C203.6	3	2	2	1								2	1	1	
C203	3.00	2.00	2.00	1.00	0.17							1.17	1.00	1.00	

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C203.1	2.00	1.33	1.33	0.67								0.67	0.67	0.67	
C203.2	2.00	1.33	1.33	0.67								0.67	0.67	0.67	
C203.3	2.00	1.33	1.33	0.67								0.67	0.67	0.67	
C203.4	2.00	1.33	1.33	0.67	0.67							0.67	0.67	0.67	
C203.5	2.00	1.33	1.33	0.67								0.67	0.67	0.67	
C203.6	2.00	1.33	1.33	0.67								1.33	0.67	0.67	
C203	2.00	1.33	1.33	0.67	0.11							0.78	0.67	0.67	

Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence and Machine Learning)

C1.2.1

IA TEST CIRCULAR AND SCHEDULE

Academic Year 2023–2024 Even Semester

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.1.6.2023

Circular

Internal Assessment Test – 1 _for FIRST YEAR (II Semester) B.E./B.Tech., Classes will commence from 6th June 2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 pm (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – Third (3rd) Hour

11.50 a.m. – 12.45 p.m. – Fourth (4th) Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING 8138 EXAM CELL

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli -12

ExamCell

FIRST YEAR(2022-2023)- SECOND SEMESTER IA TEST-I SUBJECT ORDER_ JUNE 2023

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
06.06.2023	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
07.06.2023	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
08.06.2023	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis	-----	-----
09.06.2023	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
10.06.2023	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
12.06.2023	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

SARANATHAN COLLEGE OF ENGINEERING 8138 EXAM CELL

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.26.6.2023

Circular

Internal Assessment Test – 2 _for FIRST YEAR (II Semester) B.E./B.Tech., Classes will commence from 03.07.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – First (1st) Hour

11.50 a.m. – 12.45 p.m. – Second (2nd) Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

2022-2023- SECOND SEMESTER IA TEST-II SUBJECT ORDER

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
03.07.2023	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
04.07.2023	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis	—	—
05.07.2023	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
06.07.2023	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
07.07.2023	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics
08.07.2023	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.29th May 2024

Circular

Third Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 3rd June 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

After IA Test coaching class will be conducted for next day IA test subject.

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

Third IA Test for Second Year (4th Sem.) _ June 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
3rd June 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
4th June 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	IT3401 - Web Essentials	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	CS3452 - Theory of Computation
5th June 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AL3451 - Machine Learning	CS3492 - Database Management System	AL3452 - Operating Systems
6th June 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3492 - Data Base Management System	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	AD3391 - Database Design and Management
10th June 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	CS3451 - Introduction to Operating System	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
11th June 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3491 - Artificial Intelligence and Mechine Learning	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

Third IA Test for First Year (2nd Sem.) _ June 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
3rd June 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
4th June 2024	Batch - 1 ---------(MA3251) Batch - 2 ----------PH3256 / PH3254 / PH3201 / PH3255						
5th June 2024	Batch - 1 ---------- PH3256 / PH3202 / PH3251 Batch - 2 ----------(MA3251)						
6th June 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation
7th June 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
10th June 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Batch - 1 - AIDS (A Sec) , CSE (A & B Sec), AIML, EEE, Mech.,
Batch - 2 - AIDS (B Sec) , IT, CSBS, ECE (A & B Sec), Civil, ICE

Principal

(Finalone)

Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence and Machine Learning)

C1.2.1

IA TEST QUESTION PAPERS

Academic Year 2023–2024 Even Semester

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/Session	4.6.2024/FN	Marks	50
Course code	CS3452	Course Title	Theory of computation			
Batch No.		Duration	90 mins	Academic Year	2023- 2024	
Year/	II	Semester/Section	IV / A & B	Department	CSE(AIML)	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Instantaneous description of a Turing Machine?	C210.5	U
2	Construct T.M to find m+n for unary 0.	C210.5	U
3	List the difference between DTM and NDTM.	C210.5	R
4	What are the different programming techniques used to construct TMs?	C210.5	U
5	Construct the turing machine for f(x)= {x+1: where x=0}.	C210.5	U
6	When the problems are said to be recursively enumerable?	C210.6	U
7	What is diagonalization language?	C210.6	U
8	What is universal turing machine	C210.6	U
9	Define posts correspondence problem.	C210.6	R
10	Give an example of halting problem.	C210.6	U

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Construct a TM to do Multiplication of 2 numbers	C210.5	A
	(or)		
12	Construct a TM to do proper subtraction	C210.5	A
13	Explain the checking off symbol in TM. L=WCW/w€ {a,b}	C210.5	A
	(or)		
14	Construct the TM for $L=0^n1^n$ n>=1	C210.5	A

Part – C
(Answer all the questions 1 x 10 = 10marks)

15	Consider the TM M and w=01 where M=({q1,q2,q3},{0,1,B}, **δ**,q1,B,{q3}) and transition mapping given by 0 / 1 / B q1: q2,1,R / q2,0,L / q2,1,L q2: q3,0,L / q1,0,R / q2,0,R q3: --- / -- / --- Reduce the above problem to PCP and find whether that PCP has a solution or not.	C210.6	U,A
	Or		
16	Obtain the code for <M,1011> where M=({q1,q2,q3},{0,1,B}, **δ**,q1,B,{q3}) 0 / 1 / B q1: / q3,0,R / q2: / / / q3: q1,1,R / q2,0,R / q3,1,L	C210.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Name of the Faculty :V.Ranjani

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/Session	11.06.2024	Marks	50
Course code	AL3391	Course Title	Artificial Intelligence			
Batch No.		Duration	90 mins	Academic Year	2023- 2024	
Year/	II	Semester/Section	IV / A	Department	CSE(AIML)	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Knowledge Base?	C308.4	U
2	Define Propositional Logic.	C308.4	R
3	Explain the three functions of knowledge base Agent Program.	C308.4	U
4	Define Forward and Backward Chaining with example.	C308.4	R
5	Represent the following sentences in predicate form: a)"All the children like sweets" b) "Cathy is clever"	C308.4	A
6	Convert the following into Horn clauses. $\forall x:\forall y: cat(x) \vee fish(y) \rightarrow likes x, y$	C308.4	A
7	What is Logical Equivalence?	C308.4	U
8	Write the Truth Table for Logical connectives : P→Q , ┌ P	C308.4	A
9	Explain Bayes' Rule and its use.	C308.5	U
10	What is Conditional Probability Table (CPT)?	C308.5	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain how the Knowledge base is applied in the Wumpus world with the precise definition of task environment using 4X4 Grid room.	C308.4	U
	(or)		
12	Explain Propositional Theorem Proving in detail.	C308.4	U,E
13	Explain the operating principle of Alpha-Beta Pruning Search.	C308.3	U
	(or)		
14	With a suitable example, explain Backtracking Search for Constrain Satisfaction Problem.	C308.4	U

Part – C
(Answer all the questions 1 x 10 = 10marks)

15	What are the ways to understand the semantics of Bayesian Networks. Discuss the exact inference in Bayesian Network.	C308.5	U,A
	Or		
16	What is the purpose of Naïve Bayes model? Classify the model and explain the steps with Text Classification.	C308.5	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Name of the Faculty :M.Jebarani

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	5/6 /2024 FN	Marks	50
Course code	AL3452	**Course Title**	Operating Systems			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024(EVEN)	
Year	II	**Semester/ Section**	IV Sem/ A	**Department**	CSE(AI&ML)	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the benefits of virtual memory in memory management?	C214.3	R
2	Differentiate demand paging and pure demand paging	C214.3	AZ
3	What is page fault?	C214.3	R
4	What is Belady's anomaly?	C214.4	R
5	List out any 4 file attributes	C214.4	R
6	Differentiate seek time and rotational latency.	C214.4	AZ
7	List out all the file access methods	C214.5	R
8	List out all the directory structures	C214.5	AZ
9	Define Virtualization	C214.6	R
10	Differentiate Android and iOS	C214.6	R

Part –R

(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 a	Solve the following using Deadlock avoidance Bankers algorithm Snapshot at time T0 : Allocation Max Available A B C D A B C D A B C D P0 0 0 1 2 0 0 1 2 1 5 2 0 P1 1 0 0 0 1 7 5 0 P2 1 3 5 4 2 3 5 6 P3 0 6 3 2 0 6 5 2 P4 0 0 1 4 0 6 5 6 Answer the following questions using banker's algorithm 1. What is the content of the matrix need? 2. Is the system in a safe sate? 3. If a request from process P1 arrives for (0,4,2,0) , can the request be granted immediately.	C214.3	R
	Or		
12	Explain Segmentation in detail	C214.3	R
13	Solve the given problem using the following page replacement algorithms 1. FIFO 2. Optimal page replacement 3. LRU Reference string 1 2 3 2 1 5 2 1 6 2 5 6 3 Assume number of free frames as 3.	C214.4	E
	Or		
14	Is disk allocation possible? What are the 3 disk allocation methods?	C214.4	R

Saranathan College of Engineering,Trichy

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence and Machine Learning)

C1.2.1

IA TEST MARK STATEMENT

Academic Year 2023–2024 EVEN **Semester**

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of First Year

Internal Assessment - Attainment of Courses Outcomes (Through Direct Assessment)

Academic Period 2023 - 2024 / EVEN Semester			
COURSE CODE/TITLE	AL3452 OPERATING SYSTEMS	Batch	2022 - 2026
CLASS / SECTION	Sem 4 / CSE(AIML)		
COURSE COORDINATOR	Dr.M.Padmapriya		

COURSE OUTCOME	1	2	3	4	5	6
TARGET	65	65	65	65	65	65

ATTAINMENT LEVEL

Level	Range
1	0-60% of the Students scored more than target
2	61-90% of the Students scored more than target
3	91% of the Students scored more than target

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			28	**72**						**100**							**32**	**32**	**28**	**8**	**20**	**20**					**48**	**192**	**32**	**32**	**28**	**8**
1	813822148001	AATHISH. S	20	36						78							24	20	20	8	20	20					40	134	24	20	20	8
2	813822148002	ABINASH. E	20	36						68							24	24	20	0	20	20					40	124	24	24	20	0
3	813822148003	ABIRAAMI. S	24	64						82							24	20	24	8	20	20					44	166	24	20	24	8
4	813822148004	AISHWARYA LAKSHMI. S V	26	64						94							28	30	28	8	20	20					46	178	28	30	28	8
5	813822148005	ANITHA SRINITHI. S	26	64						96							28	28	28	6	20	20					46	180	28	28	28	6
6	813822148006	ANJANA. S	26	64						98							24	24	24	0	20	20					46	182	24	24	24	0
7	813822148008	ASHWINRAJ. R	24	42						82							20	10	20	0	20	20					44	144	20	10	20	0
8	813822148010	BARANIDHARAN. S	26	34						70							24	24	20	2	20	20					46	124	24	24	20	2
9	813822148011	CLARIBEL HERMIA. P	26	66						0							32	32	20	2	20	20					46	86	32	32	20	2
10	813822148012	DHARSHINI. R	26	68						98							32	30	26	6	20	20					46	186	32	30	26	6
11	813822148013	DHYANESH. D	26	52						70							20	20	8	4	20	20					46	142	20	20	8	4
12	813822148014	GAYATHRI. R	16	64						76							30	30	28	6	20	20					36	160	30	30	28	6
13	813822148015	GNANASOUNTHAR. A	20	40						60							24	24	4	4	20	20					40	120	24	24	4	4
14	813822148016	GOKUL SHYAM. B	20	40						76							24	20	20	2	20	20					40	136	24	20	20	2
15	813822148017	HARIHARAN. M	20	54						54							24	24	22	0	20	20					40	128	24	24	22	0
16	813822148018	HARINI. N	20	36						70							28	30	14	0	20	20					40	126	28	30	14	0
17	813822148019	HARISH RAAGHAV. V	24	58						68							28	28	24	4	20	20					44	146	28	28	24	4
18	813822148020	HINGSLY PRIYA. R	10	54						94							30	30	24	6	20	20					30	168	30	30	24	6

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			28	**72**						**100**							**32**	**32**	**28**	**8**	**20**	**20**					**48**	**192**	**32**	**32**	**28**	**8**
19	813822148021	KEERTHANA. K	26	68						98							32	30	26	6	20	20					46	186	32	30	26	6
20	813822148022	KIRAN KUMAR. B	26	30						78							30	30	20	6	20	20					46	128	30	30	20	6
21	813822148023	MEENAKSHI. S	26	68						96							24	24	24	4	20	20					46	184	24	24	24	4
22	813822148024	MEHANETHRA. K G	24	62						96							30	30	26	8	20	20					44	178	30	30	26	8
23	813822148025	MUTHU KRISHNAN. R	26	56						74							30	28	0	0	20	20					46	150	30	28	0	0
24	813822148026	NANDAKUMARAN. C	12	12						20							24	24	4	4	20	20					32	52	24	24	4	4
25	813822148027	PAVITHRA. B	26	68						90							28	28	24	8	20	20					46	178	28	28	24	8
26	813822148028	RAGAVAN. K	26	68						98							32	28	24	8	20	20					46	186	32	28	24	8
27	813822148030	RAHUL CHANDRAN RENGARAJ	22	60						78							20	20	20	2	20	20					42	158	20	20	20	2
28	813822148031	RANGA PRIYA. A	26	60						98							28	28	28	0	20	20					46	178	28	28	28	0
29	813822148032	SABARIESWAR. S A	22	64						82							28	28	24	8	20	20					42	166	28	28	24	8
30	813822148033	SANDEEP PRAKASH. R	26	42						78							28	28	20	4	20	20					46	140	28	28	20	4
31	813822148034	SANJITH N	26	48						96							28	28	20	0	20	20					46	164	28	28	20	0
32	813822148035	SANKARANARAYANAN. M	20	32						54							26	26	20	2	20	20					40	106	26	26	20	2
33	813822148036	SANTHOSH. P	8	8						24							20	20	20	0	20	20					28	52	20	20	20	0
34	813822148037	SHARINI. R	4	0						6							4	4	0	0	20	20					24	26	4	4	0	0
35	813822148038	SHIRIN. J	26	68						70							28	28	28	4	20	20					46	158	28	28	28	4
36	813822148039	SHRI HARISH. S	10	50						86							26	26	16	0	20	20					30	156	26	26	16	0
37	813822148040	SIVAKUMAR. B	20	58						0							26	26	20	4	20	20					40	78	26	26	20	4
38	813822148041	SIVARANJANI. R	24	56						98							26	26	20	0	20	20					44	174	26	26	20	0
39	813822148042	SOWMIYA. K	20	58						72							32	32	18	0	20	20					40	150	32	32	18	0
40	813822148043	SOWNTHARYA. M	24	66						88							30	30	24	8	20	20					44	174	30	30	24	8
41	813822148044	SRINIDHI. K	26	68						84							30	30	26	8	20	20					46	172	30	30	26	8
42	813822148045	SRINITHI. A	26	68						98							32	30	26	6	20	20					46	186	32	30	26	6
43	813822148046	SUDHARSAN. R N	4	16						20							30	10	10	0	20	20					24	56	30	10	10	0
44	813822148047	SUSHMITHA. E K	26	58						68							24	24	24	0	20	20					46	146	24	24	24	0
45	813822148048	SWEATHA. S	20	48						64							30	24	24	8	20	20					40	132	30	24	24	8

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			28	**72**						**100**							**32**	**32**	**28**	**8**	**20**	**20**					**48**	**192**	**32**	**32**	**28**	**8**
46	813822148049	THAARANI. R	22	46						90							28	28	18	0	20	20					42	156	28	28	18	0
47	813822148050	TISHYA SHINY. J	20	68						84							28	28	28	8	20	20					40	172	28	28	28	8
48	813822148051	UGIN VENASA. J	16	42						74							20	20	20	2	20	20					36	136	20	20	20	2
49	813822148052	VASANTH. D	6	38						52							20	10	0	0	20	20					26	110	20	10	0	0
50	813822148053	VIDHYA. N	24	68						80							24	24	22	0	20	20					44	168	24	24	22	0
51	813822148054	VIGNESH. M	14	16						18							8	8	0	0	20	20					34	54	8	8	0	0
52	813822148055	VINCY VICTORIYA. S	24	66						84							28	28	24	8	20	20					44	170	28	28	24	8
53	813822148056	VISSHALPRASATH. M	20	44						80							30	30	20	2	20	20					40	144	30	30	20	2
54	813822148057	YOGA. A	24	68						46							24	24	28	8	20	20					44	134	24	24	28	8
55	813822148058	YUVARAJ. S	8	22						52							20	20	2	0	20	20					28	94	20	20	2	0
56	813822148301	MANI SHANKAR. U	22	60						0							20	20	20	4	20	20					42	80	20	20	20	4
CO's Target Value																											31.20	124.80	20.80	20.80	18.20	5.2(
No. of Student Secured above CO's Target value																											49	42	46	42	43	20
Percentage of Student Secured above Target																											87.50	75.00	82.14	75.00	76.79	35.7

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of First Year

COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION

Academic Period 2023 - 2024 / EVEN Semester			
COURSE CODE/TITLE	OPERATING SYSTEMS	Batch	2022 - 2026
CO Attainment Level: 1 - (0% - 60%) 2- (61%-89%) 3-(91% and Above)			

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
1	813822148001	AATHISH. S	A
2	813822148002	ABINASH. E	B+
3	813822148003	ABIRAAMI. S	A
4	813822148004	AISHWARYA LAKSHMI. S V	A+
5	813822148005	ANITHA SRINITHI. S	A
6	813822148006	ANJANA. S	A
7	813822148008	ASHWINRAJ. R	B+
8	813822148010	BARANIDHARAN. S	B+
9	813822148011	CLARIBEL HERMIA. P	A
10	813822148012	DHARSHINI. R	A
11	813822148013	DHYANESH. D	A
12	813822148014	GAYATHRI. R	A
13	813822148015	GNANASOUNTHAR. A	B+
14	813822148016	GOKUL SHYAM. B	A
15	813822148017	HARIHARAN. M	A
16	813822148018	HARINI. N	A
17	813822148019	HARISH RAAGHAV. V	A
18	813822148020	HINGSLY PRIYA. R	A
19	813822148021	KEERTHANA. K	A+
20	813822148022	KIRAN KUMAR. B	A
21	813822148023	MEENAKSHI. S	A
22	813822148024	MEHANETHRA. K G	A
23	813822148025	MUTHU KRISHNAN. R	A
24	813822148026	NANDAKUMARAN. C	B+
25	813822148027	PAVITHRA. B	A
26	813822148028	RAGAVAN. K	A

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
27	813822148030	RAHUL CHANDRAN RENGARAJ	B+
28	813822148031	RANGA PRIYA. A	A
29	813822148032	SABARIESWAR. S A	A
30	813822148033	SANDEEP PRAKASH. R	A
31	813822148034	SANJITH N	A
32	813822148035	SANKARANARAYANAN. M	A
33	813822148036	SANTHOSH. P	A
34	813822148037	SHARINI. R	A
35	813822148038	SHIRIN. J	A
36	813822148039	SHRI HARISH. S	A
37	813822148040	SIVAKUMAR. B	A
38	813822148041	SIVARANJANI. R	A
39	813822148042	SOWMIYA. K	A
40	813822148043	SOWNTHARYA. M	A
41	813822148044	SRINIDHI. K	A
42	813822148045	SRINITHI. A	A
43	813822148046	SUDHARSAN. R N	A
44	813822148047	SUSHMITHA. E K	A
45	813822148048	SWEATHA. S	A
46	813822148049	THAARANI. R	A
47	813822148050	TISHYA SHINY. J	A+
48	813822148051	UGIN VENASA. J	A
49	813822148052	VASANTH. D	B+
50	813822148053	VIDHYA. N	A
51	813822148054	VIGNESH. M	B+
52	813822148055	VINCY VICTORIYA. S	A
53	813822148056	VISSHALPRASATH. M	A

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
54	813822148057	YOGA. A	A
55	813822148058	YUVARAJ. S	A
56	813822148301	MANI SHANKAR. U	A
No. of S/O Grade			0
No. of A/A+ Grade			3
No. of B/A Grade			45
No. of C/B+ Grade			8
No. of D/B Grade			0
No. of E/B Grade			0
Target for course outcome Attainment			65
No of students above the target			56
CO-Attainment University			100.00

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012
Programme: **First Year**
Overall Attainment Sheet – POs & PSOs attainment calculation
AcademicYear : 2023-24EVEN

COURSE CODE/TITLE:**AL3452 OPERATING SYSTEMS**:COURSE COORDINATOR:**Dr.M.Padmapriya** Batch:2022 - 2026 **Sem:4 CO Attainment Level: 1 - (0% - 60%) 2- (61%-89%) 3-(91% and Above)**

CO	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO-UNI) (Avg. Attainment of All section) (%)	Direct CO Attainment (0.40xCO-INT + 0.60xCO-UNI) (%)	Indirect CO Attainment (Course End Survey)	Over all CO Attainment (0.8xDirect + 0.2xIndirect) (%)	Over all CO Attainment Level
C216.1	87.50	100.00	95.00	85.71	93.14	3
C216.2	75.00	100.00	90.00	86.31	89.26	2
C216.3	82.14	100.00	92.86	84.52	91.19	3
C216.4	75.00	100.00	90.00	80.95	88.19	2
C216.5	76.79	100.00	90.71	78.57	88.29	2
C216.6	35.71	100.00	74.29	79.76	75.38	2

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C216.1	3	1	3	1	1				1	3	3	3	2	1	3
C216.2	3	1	3	2	2				3	2	1	1	3	1	2
C216.3	3	3	2	1	2				3	3	1	2	2	2	2
C216.4	2	2	2	3	2				3	1	3	1	1	2	1
C216.5	2	2	2	3	2				3	1	3	1	1	2	1
C216.6	1	2	1	1	3				1	2	2	2	2	2	2
C216	2.33	1.83	2.17	1.83	2.00				2.33	2.00	2.17	1.67	1.83	1.67	1.83

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C216.1	3.00	1.00	3.00	1.00	1.00				1.00	3.00	3.00	3.00	2.00	1.00	3.00
C216.2	2.00	0.67	2.00	1.33	1.33				2.00	1.33	0.67	0.67	2.00	0.67	1.33
C216.3	3.00	3.00	2.00	1.00	2.00				3.00	3.00	1.00	2.00	2.00	2.00	2.00
C216.4	1.33	1.33	1.33	2.00	1.33				2.00	0.67	2.00	0.67	0.67	1.33	0.67
C216.5	1.33	1.33	1.33	2.00	1.33				2.00	0.67	2.00	0.67	0.67	1.33	0.67
C216.6	0.67	1.33	0.67	0.67	2.00				0.67	1.33	1.33	1.33	1.33	1.33	1.33
C216	1.89	1.44	1.72	1.33	1.50				1.78	1.67	1.67	1.39	1.44	1.28	1.50

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of First Year

Internal Assessment - Attainment of Courses Outcomes (Through Direct Assessment)

Academic Period 2023 - 2024 / EVEN Semester			
COURSE CODE/TITLE	CS3452 Theory of Computation	Batch	2022 - 2026
CLASS / SECTION	Sem 4 / CSE(AIML)		
COURSE COORDINATOR	Ms.V.Ranjani		

COURSE OUTCOME	1	2	3	4	5	6
TARGET	65	65	65	65	65	65

ATTAINMENT LEVEL

Level	Range
1	0-60% of the Students scored more than target
2	61-90% of the Students scored more than target
3	91% of the Students scored more than target

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			68	**32**						**28**	**44**	**28**							**060**	**40**	**20**	**20**					**88**	**80**	**44**	**28**	**60**	**40**
1	813822148001	AATHISH. S	20	14						6	10	4							24	28	20	20					40	40	10	4	24	28
2	813822148002	ABINASH. E	42	14						6	18	12							32	18	20	20					62	40	18	12	32	18
3	813822148003	ABIRAAMI. S	58	16						28	22	18							0	0	20	20					78	64	22	18	0	0
4	813822148004	AISHWARYA LAKSHMI. S V	48	26						16	36	12							26	40	20	20					68	62	36	12	26	40
5	813822148005	ANITHA SRINITHI. S	48	22						14	40	16							24	26	20	20					68	56	40	16	24	26
6	813822148006	ANJANA. S	54	24						24	38	24							24	32	20	20					74	68	38	24	24	32
7	813822148008	ASHWINRAJ. R	8	4						4	0	0							4	0	20	20					28	28	0	0	4	0
8	813822148010	BARANIDHARAN. S	22	12						18	32	8							6	32	20	20					42	50	32	8	6	32
9	813822148011	CLARIBEL HERMIA. P	24	0						18	30	20							0	0	20	20					44	38	30	20	0	0
10	813822148012	DHARSHINI. R	66	26						18	40	8							50	40	20	20					86	64	40	8	50	40
11	813822148013	DHYANESH. D	4	18						16	16	0							6	0	20	20					24	54	16	0	6	0
12	813822148014	GAYATHRI. R	28	4						18	24	20							8	30	20	20					48	42	24	20	8	30
13	813822148015	GNANASOUNTHAR. A	30	16						10	6	4							24	6	20	20					50	46	6	4	24	6
14	813822148016	GOKUL SHYAM. B	8	20						22	10	4							20	0	20	20					28	62	10	4	20	0
15	813822148017	HARIHARAN. M	22	8						8	18	6							0	0	20	20					42	36	18	6	0	0
16	813822148018	HARINI. N	0	0						12	26	22							30	24	20	20					20	32	26	22	30	24
17	813822148019	HARISH RAAGHAV. V	6	8						10	14	4							12	20	20	20					26	38	14	4	12	20
18	813822148020	HINGSLY PRIYA. R	38	28						22	30	26							24	30	20	20					58	70	30	26	24	30

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			68	**32**						**28**	**44**	**28**							**060**	**40**	**20**	**20**					**88**	**80**	**44**	**28**	**60**	**40**
19	813822148021	KEERTHANA. K	64	28						26	40	26							58	36	20	20					84	74	40	26	58	36
20	813822148022	KIRAN KUMAR. B	20	14						28	22	10							26	28	20	20					40	62	22	10	26	28
21	813822148023	MEENAKSHI. S	56	24						18	40	20							52	40	20	20					76	62	40	20	52	40
22	813822148024	MEHANETHRA. K G	40	22						16	40	20							44	20	20	20					60	58	40	20	44	20
23	813822148025	MUTHU KRISHNAN. R	32	6						12	14	8							18	4	20	20					52	38	14	8	18	4
24	813822148026	NANDAKUMARAN. C	6	12						8	28	8							20	18	20	20					26	40	28	8	20	18
25	813822148027	PAVITHRA. B	34	16						18	34	18							10	28	20	20					54	54	34	18	10	28
26	813822148028	RAGAVAN. K	62	26						18	42	24							56	34	20	20					82	64	42	24	56	34
27	813822148030	RAHUL CHANDRAN RENGARAJ	46	22						20	34	22							10	20	20	20					66	62	34	22	10	20
28	813822148031	RANGA PRIYA. A	56	20						28	36	26							48	28	20	20					76	68	36	26	48	28
29	813822148032	SABARIESWAR. S A	36	20						20	26	24							20	24	20	20					56	60	26	24	20	24
30	813822148033	SANDEEP PRAKASH. R	16	10						16	26	12							24	22	20	20					36	46	26	12	24	22
31	813822148034	SANJITH N	18	10						12	0	4							20	8	20	20					38	42	0	4	20	8
32	813822148035	SANKARANARAYANAN. M	44	12						18	36	18							16	34	20	20					64	50	36	18	16	34
33	813822148036	SANTHOSH. P	4	0						0	0	0							10	8	20	20					24	20	0	0	10	8
34	813822148037	SHARINI. R	6	2						0	0	0							2	4	20	20					26	22	0	0	2	4
35	813822148038	SHIRIN. J	50	24						18	34	18							54	32	20	20					70	62	34	18	54	32
36	813822148039	SHRI HARISH. S	10	10						20	30	10							22	6	20	20					30	50	30	10	22	6
37	813822148040	SIVAKUMAR. B	52	24						24	34	24							36	34	20	20					72	68	34	24	36	34
38	813822148041	SIVARANJANI. R	62	24						20	34	20							46	38	20	20					82	64	34	20	46	38
39	813822148042	SOWMIYA. K	40	12						18	26	16							40	24	20	20					60	50	26	16	40	24
40	813822148043	SOWNTHARYA. M	38	12						10	28	20							38	22	20	20					58	42	28	20	38	22
41	813822148044	SRINIDHI. K	56	22						28	36	18							46	36	20	20					76	70	36	18	46	36
42	813822148045	SRINITHI. A	50	26						20	38	24							52	38	20	20					70	66	38	24	52	38
43	813822148046	SUDHARSAN. R N	18	4						6	0	0							20	20	20	20					38	30	0	0	20	20
44	813822148047	SUSHMITHA. E K	16	16						10	4	14							44	32	20	20					36	46	4	14	44	32
45	813822148048	SWEATHA. S	30	0						10	16	24							28	22	20	20					50	30	16	24	28	22

S.NO	REG NO	NAME OF THE STUDENT	IAT-1 MARKS ALLOTED						IAT-2 MARKS ALLOTED						IAT-3 MARKS ALLOTED						ASSIGNMENT						TOTAL COURSE OUTCOME					
			C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6
			68	**32**						**28**	**44**	**28**							**060**	**40**	**20**	**20**					**88**	**80**	**44**	**28**	**60**	**40**
46	813822148049	THAARANI. R	18	0						18	22	4							26	24	20	20					38	38	22	4	26	24
47	813822148050	TISHYA SHINY. J	24	20						28	42	22							60	36	20	20					44	68	42	22	60	36
48	813822148051	UGIN VENASA. J	44	12						26	40	18							22	36	20	20					64	58	40	18	22	36
49	813822148052	VASANTH. D	4	0						4	6	0							20	2	20	20					24	24	6	0	20	2
50	813822148053	VIDHYA. N	60	22						24	30	20							24	12	20	20					80	66	30	20	24	12
51	813822148054	VIGNESH. M	0	0						0	0	0							14	0	20	20					20	20	0	0	14	0
52	813822148055	VINCY VICTORIYA. S	14	4						20	30	14							26	16	20	20					34	44	30	14	26	16
53	813822148056	VISSHALPRASATH. M	14	18						4	8	4							36	20	20	20					34	42	8	4	36	20
54	813822148057	YOGA. A	44	6						12	28	22							36	16	20	20					64	38	28	22	36	16
55	813822148058	YUVARAJ. S	8	4						8	4	6							0	20	20	20					28	32	4	6	0	20
56	813822148301	MANI SHANKAR. U	52	18						8	34	14							22	38	20	20					72	46	34	14	22	38
CO's Target Value																											57.20	52.00	28.60	18.20	39.00	26.00
No. of Student Secured above CO's Target value																											25	25	26	20	13	23
Percentage of Student Secured above Target																											44.64	44.64	46.43	35.71	23.21	41.07

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012

Department of First Year

COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION

Academic Period 2023 - 2024 / EVEN Semester			
COURSE CODE/TITLE	Theory of Computation	Batch	2022 - 2026
CO Attainment Level: 1 - (0% - 60%) 2- (61%-89%) 3-(91% and Above)			

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
1	813822148001	AATHISH. S	B
2	813822148002	ABINASH. E	U
3	813822148003	ABIRAAMI. S	B
4	813822148004	AISHWARYA LAKSHMI. S V	B
5	813822148005	ANITHA SRINITHI. S	B
6	813822148006	ANJANA. S	B+
7	813822148008	ASHWINRAJ. R	U
8	813822148010	BARANIDHARAN. S	B
9	813822148011	CLARIBEL HERMIA. P	B
10	813822148012	DHARSHINI. R	A
11	813822148013	DHYANESH. D	U
12	813822148014	GAYATHRI. R	B+
13	813822148015	GNANASOUNTHAR. A	U
14	813822148016	GOKUL SHYAM. B	B
15	813822148017	HARIHARAN. M	C
16	813822148018	HARINI. N	B
17	813822148019	HARISH RAAGHAV. V	C
18	813822148020	HINGSLY PRIYA. R	B+
19	813822148021	KEERTHANA. K	A+
20	813822148022	KIRAN KUMAR. B	B
21	813822148023	MEENAKSHI. S	A
22	813822148024	MEHANETHRA. K G	A
23	813822148025	MUTHU KRISHNAN. R	B
24	813822148026	NANDAKUMARAN. C	U
25	813822148027	PAVITHRA. B	B+
26	813822148028	RAGAVAN. K	A+

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
27	813822148030	RAHUL CHANDRAN RENGARAJ	B
28	813822148031	RANGA PRIYA. A	B+
29	813822148032	SABARIESWAR. S A	B
30	813822148033	SANDEEP PRAKASH. R	B
31	813822148034	SANJITH N	B
32	813822148035	SANKARANARAYANAN. M	B
33	813822148036	SANTHOSH. P	B
34	813822148037	SHARINI. R	C
35	813822148038	SHIRIN. J	B+
36	813822148039	SHRI HARISH. S	U
37	813822148040	SIVAKUMAR. B	U
38	813822148041	SIVARANJANI. R	B+
39	813822148042	SOWMIYA. K	B
40	813822148043	SOWNTHARYA. M	B
41	813822148044	SRINIDHI. K	B+
42	813822148045	SRINITHI. A	B+
43	813822148046	SUDHARSAN. R N	C
44	813822148047	SUSHMITHA. E K	B+
45	813822148048	SWEATHA. S	B
46	813822148049	THAARANI. R	B
47	813822148050	TISHYA SHINY. J	A
48	813822148051	UGIN VENASA. J	B
49	813822148052	VASANTH. D	U
50	813822148053	VIDHYA. N	B+
51	813822148054	VIGNESH. M	U
52	813822148055	VINCY VICTORIYA. S	B
53	813822148056	VISSHALPRASATH. M	B

S.NO	REG. NO.	NAME OF THE STUDENT	GRADE
54	813822148057	YOGA. A	U
55	813822148058	YUVARAJ. S	U
56	813822148301	MANI SHANKAR. U	B
No. of S/O Grade			0
No. of A/A+ Grade			2
No. of B/A Grade			4
No. of C/B+ Grade			11
No. of D/B Grade			24
No. of E/B Grade			0
Target for course outcome Attainment			65
No of students above the target			17
CO-Attainment University			30.36

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirappalli - 620012
Programme: **First Year**
Overall Attainment Sheet – POs & PSOs attainment calculation
AcademicYear : 2023-24EVEN

COURSE CODE/TITLE:**CS3452 Theory of Computation**:COURSE COORDINATOR:**Ms.V.Ranjani** Batch:2022 - 2026 **Sem:4 CO Attainment Level: 1 - (0% - 60%) 2-(61%-89%) 3-(91% and Above)**

CO	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO-UNI) (Avg. Attainment of All section) (%)	Direct CO Attainment (0.40xCO-INT + 0.60xCO-UNI) (%)	Indirect CO Attainment (Course End Survey)	Over all CO Attainment (0.8xDirect + 0.2xIndirect) (%)	Over all CO Attainment Level
C210.1	44.64	30.36	36.07	85.12	45.88	1
C210.2	44.64	30.36	36.07	85.12	45.88	1
C210.3	46.43	30.36	36.79	86.31	46.69	1
C210.4	35.71	30.36	32.50	83.33	42.67	1
C210.5	23.21	30.36	27.50	83.93	38.79	1
C210.6	41.07	30.36	34.64	82.14	44.14	1

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C210.1	1	3	2	3					1	1	2	3	1	3	2
C210.2	2	2	3	2	1				3	3	2	3	3	1	2
C210.3	2	2	3	2	1				1	3	1	2	1	2	2
C210.4	2	2	2	1					1	3	3	2	1	3	2
C210.5	2	2	2	1	1				1	1	3	2	3	1	3
C210.6	2	2	2	2					1	1	2	2	1	1	2
C210	1.83	2.17	2.33	1.83	0.50				1.33	2.00	2.17	2.33	1.67	1.83	2.17

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PS02	PS03
C210.1	0.33	1.00	0.67	1.00					0.33	0.33	0.67	1.00	0.33	1.00	0.67
C210.2	0.67	0.67	1.00	0.67	0.33				1.00	1.00	0.67	1.00	1.00	0.33	0.67
C210.3	0.67	0.67	1.00	0.67	0.33				0.33	1.00	0.33	0.67	0.33	0.67	0.67
C210.4	0.67	0.67	0.67	0.33					0.33	1.00	1.00	0.67	0.33	1.00	0.67
C210.5	0.67	0.67	0.67	0.33	0.33				0.33	0.33	1.00	0.67	1.00	0.33	1.00
C210.6	0.67	0.67	0.67	0.67					0.33	0.33	0.67	0.67	0.33	0.33	0.67
C210	0.61	0.72	0.78	0.61	0.17				0.44	0.67	0.72	0.78	0.56	0.61	0.72

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.27.09.2023

Circular

Second Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 3rd October 2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 3rd Hour

11.50 a.m. – 12.45 p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS OCTOBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
3rd October2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th October 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
5th October2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th October 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	CCS367-Storage Technologies
th October 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
10th tober2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS335-Cloud computing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS OCTOBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
3rd October2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th October 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
5th October2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-Instrumentationin Petrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th October 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
9th October 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
10th October2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 2 DUTY LIST 2023-2024 ODD SEMESTER

02.10.2023

S.no	STAFF NAME	10/3/2023	10/4/2023	10/5/2023	10/7/2023	10/9/2023	10/10/2023	
	DAY ORDER	II	III	IV	I	II	III	
1	Dr. S.A Arunmozhi						@	1
2	Dr. S Rajeswari			@				1
3	Dr. V Mohan					@		1
4	Dr. P Shanmugapriya						@	1
5	Dr. M Baritha Begum					@		1
6	Mr. S Hariprasath	@			@			2
7	Dr. K Malaisamy		@		@			2
8	Ms. P Sivagamasundhari		@					1
9	Ms.J.Eindhumathy			@				1
10	Mr. M Mahendran	@				@		2
11	Mr. G Sivakannu			@				1
12	Ms. S Kiruthiga		@	@				2
13	Ms. M Anthuvan Lydia		@				@	2
14	Ms. B.Divya	@			@			2
15	Ms. Dr.N.Preethi Elizabeth	@				@		2
16	Mr.A.Kesavan				@		@	2
		4	4	4	4	4	4	24

HOD/ECE

SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12					
INTERNAL ASSESSMENT TEST II - III /IV YEAR BE/B.TECH - ODD SEM 2023-24					
SEATING ARRANGEMENT					
	ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
	KS 316	AIDS	A	III	248001-248023	20
	JS-CH-A	AIDS	A	III	248024-248043	20
	JS-CH-B	AIDS	A	III	248044-248063	20
	JS-CH-C	AIDS	A	III	248064-248068	3
	KS 109	CIVIL	A	IV	237001-237022	20
	KS 110	CIVIL	A	IV	237023-237028	5
	KS 215	CIVIL	A	III	247001-247008	8
	KS 307	CIVIL	A	III	247009-247028	20
	KS 311	CIVIL	A	III	247029,	1
	KS 311	CSBS	A	III	249001-249004	4
	KS 312	CSBS	A	III	249005-249024	20
	KS 313	CSBS	A	III	249025-249044	20
	KS 315	CSBS	A	III	249045-249064	20
	KS 109	CSE	A	III	231125,241001-241020	20
	KS 110	CSE	A	III	241021-241040	20
	KS 111	CSE	A	III	241041-241060	20
	KS 113	CSE	A/B	III	241061-241063,241129,130,134, 221116,241064-241076	20
	KS 114	CSE	B	III	241077-241097	20
	KS 213	CSE	B	III	241098-241119	20
	KS 215	CSE	B	III	241120-241133	12
	KS 312	CSE	A	IV	231001-231018	18
	KS 313	CSE	A	IV	231019-231038	20
	KS 315	CSE	A	IV	231039-231058	20
	KS 316	CSE	A	IV	231059-231075	20
	JS-CH-A	CSE	A	IV	231076-231096	20
	JS-CH-B	CSE	A	IV	231097-231116	20
	JS-CH-C	CSE	A	IV	231117-231123	6
	KS 110	ECE	A	IV	232001-232016	15
	KS 111	ECE	A	IV	232017-232037	20
	KS 113	ECE	A	IV	232038-232054,232110,111,112	20
	KS 114	ECE	B	IV	232055-232076	20
	KS 213	ECE	B	IV	232077-232096	20
	KS 215	ECE	B	IV	232097-232109	13
	KS 311	ECE	A	III	242001-242021	20
	KS 312	ECE	A	III	242022-242042	20
	KS 313	ECE	A	III	242043-242062,127, 128,129,	20
	KS 315	ECE	A/B	III	242130-131,242064-242081	20
	KS 316	ECE	B	III	242082-242102	20
	JS-CH-A	ECE	B	III	242103-242122	20

HOD/ECE

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Saranathan College of Engineering

Tiruchirapalli

III-ECE-127

Internal Assessment test - II			Date/Session	05-10-2023	Marks	50
Course code	EC 3551	Course Title	Transmission Lines and RF Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	V Sem A &B Sec	Department	ECE	

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define the term Reflection Loss	C303.2	R,U
2	Write the expression for the power flow in a high frequency line in a current loop and in voltage loop	C303.2	R,U
3	Formulate the expression to compute the maximum and minimum input impedance of dissipation less line.	C303.2	R
4	A $\lambda/8$ transmission line is terminated by 25+j50 ohms. If the characteristic impedance of the line is 100 ohms, find the input impedance of the line.	C303.3	A,AZ, E
5	Calculate .the length of short circuit line to give an impedance of +j20 ohms. The characteristic impedance of the line is 100 ohms.	C303.3	R, U
6	What is the outer circle present on the Smith chart? One complete revolution around a Smith chart represents how many wavelengths?	C303.3	R,U
7	Write the expression of input impedance of one eighth wave line and its interpretation.	C303.3	R,U
8	A 75 lossless transmission line is to be matched to a resistive load impedance of ZL =100 via a quarter wave section. Determine the input impedance of a quarter wave line.	C303.3	R
9	List out the advantages and applications of Smith Chart	C303.3	AZ
10	List the advantages and disadvantages of single stub matching.	C303.3	R, U

Part – B- (Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Describe how the VSWR and wavelength are measured over a transmission line with neat diagram which describes the setup required for the measurement.	C303.2	U,R,A Z
	Or		
12	a)Summarize the effect of the reflections losses on power delivered to the load on an unmatched line.(6) b)Describe how the unknown load impedance is measured over a transmission line (4)	C303.2	AZ, R
13	a) Describe the double stub matching of a transmission line with neat diagram. b) Describe quarter wave transmission line and discuss its applications.	C303.3	A,AZ
	Or		
14	VSWR of a lossless line is found to be 5 and successive voltage minima are 40cm apart. The first voltage minimum is observed to be 15cm from the load. The length of the line is 160cm and Zo is 300 Ω. Apply the values in smith chart to find the load impedance and input impedance	C303.3	A,AZ , U,E

Part – C - (Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	A RF transmission line of length 1m, characteristic impedance of Zo=300 Ω is terminated with an impedance of $100\angle 45^{\circ}\Omega$. This load is to be matched to the transmission line by using a short circuited stub. With the help of smith chart, determine the length and location of the stub.	C303.3	A,AZ, E
	Or		
16	Describe the impedance matching technique using single stub and obtain the expression for the stub location and length.	C303.3	R,AZ, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

(Approved by AICTE, Newdelhi, Accredited by NAAC with "A+" Grade and Affiliated to Anna University, Chennai)

Tiruchirappalli – 12

INTERNAL ASSESSMENT TEST - II			Date/ Session	9.10.23/FN	Marks	50
Course code	CEC342	Course Title	Mixed signal IC design Testing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Sec	05/ A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Distinguish between Hardware calibration and Software Calibration.	CEC342.2	U,R
2	How long does it take a first-order *RC* low-pass circuit with R =1 kΩ and C = 2.2 nF to settle to 5% of its final value?	CEC342.2	U,R
3	A DC offset measurement is repeated many times. resulting in a series of values having an average of 257 mV. The measurements exhibit a standard deviation of 27 mV. If our specification limits are 250 + or - 50 mV, where would we have to set our 6σ guardbanded upper and lower test limits?.	CEC342.2	U,R
4	What is Six sigma quality?.	CEC342.2	U,R
5	Define and write down the formula for C_P and C_{pk}.	CEC342.2	U,R
6	A 10-bit DAC has a full-scale voltage range of -5.0 to 5.0 V. What is the LSB step size?	CEC342.3	U,AZ
7	What is the ideal gain of a 10-bit DAC with a full scale voltage range of 0 to 5 V?	CEC342.3	U,AZ
8	Write down the formula for DAC gain and LSB step size.	CEC342.3	U,R
9	Compare ADC and DAC in terms of mapping function.	CEC342.3	U,R
10	Get the equivalent analog voltage for the code 11111111 (integer –127)in Sign/Magnitude Format for an 8-Bit DAC	CEC342.3	U,AZ

Part – B

(Answer all the questions 2 x 10 =20marks)

Q.No.	Questions	CO	Skills
11.	Explain how measurement error is reduced by increasing measurement time.	CEC342.2	U,R
	(OR)		
12.	i) Explain the Effects of reproducibility and process variation on yield ii)A particular test program performs 857 tests, most of which cause little or no yield loss. Five measurements account for most of the yield loss. Using a lot summary and a continue-on-fail test process, the yield loss due to each measurement is found to be: Test #1: 1%, Test #2: 5%, Test #3: 2.3%, Test #4: 7%, Test #5: 1.5% All other tests combined 0.5% What is the overall yield of this lot of material?	CEC342.2	U,AZ
13.	Explain in detail about basic DC tests in DAC testing	CEC342.3	U, R
	(OR)		

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14.	Explain in detail about any three Transfer Curve Tests in DAC testing .	CEC342.3	U,R
	Part -C **(Answer all the questions 1x 10 =10marks)**		
15.	The simple RC low-pass circuit (R= 1KΩ and c=1μF) is used to filter the output of a DUT containing a noisy DC signal. For a particular measurement, the signal component is assumed to change from 0 to 1 V, instantaneously. How long does it take the filter to settle to within 1% of its final value? By what factor does the settling time increase when the filter's 3-dB bandwidth is decreased by a factor of 10?	CEC342.2	AZ,U
	(OR)		
16.	a) A DC offset measurement is repeated many times, resulting in a series of values having an average of 257 mV. The measurements exhibit a standard deviation of 27 mV. What is the probability that a non averaged offset measurement will fail on any given test program execution? Assume an upper test limit of 300 mV and a lower test limit of 200 mV.. (6) b) A series of AC RMS measurements reveal an average value of 1.25 V and a standard deviation of 35 mV. If our specification limits were 1.2 V plus or minus 150 mV, where would we have to set our 3σ guard banded upper and lower test limits? If 6σ guard bands are desired, how many times would we have to average the measurement to achieve guard bands of 40 mV? (4)	CEC342.2 CEC342.2	AZ,U AZ,U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

*Name of the Faculty (s) :**Dr.C.VENNILA&Dr.M.PADMAA***

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Saranathan College of Engineering
Tiruchirapalli

III -ECE- 127

Internal Assessment Test - II			Date/ Session 10.10.23	FN	Marks	50
Course code	CEC332	Course Title	ADVANCED DIGITAL SIGNAL PROCESSING			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V	Department	ECE A & B	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Let the random process be $x(t) = \cos(t + \emptyset)$where $\emptyset$ is a random variable with density function $f(\emptyset) = \frac{1}{pi}$, -pi/2 <$\emptyset$< pi/2, check whether the process is stationary or not.	C304.2	*A*
2	A random process x(t) is defined as $x(t) = A\cos(\varpi t + \theta)$ *where* ω *and* ϑ are constants and A is a random variable. Determine the whether x(t) is a wide sense stationary process or not.	C304.2	*A*
3	Determine the mean and variance of the process of the process given that the auto correlation function $r_{xx}(\tau) = 25 + \frac{4}{1+6\tau^2}$ x	C304.2	*U*
4	Let $Z(t) = z\,X(t)\,Y(t)$. Find the value of $r_{zz}(t, t+\tau)$, where X(t) and Y(t) are statistically independent.	C304.2	*R*
5	State wiener = Khintchine theorem.	C304.2	*U*
6	What are innovations processes.	C304.2	*R*
7	Compare AR Process with MA Processes.	C304.3	*U*
8	State Yule –walker equations	C304.3	*U*
9	What is the relationship between Bp(z) and Ap(z) in backward prediction process?	C304.3	*R*
10	What are the advantages of Lattice structures?	C304.3	*R*

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Describe the innovations representations of a stationary random process. .	C304.2	*R*
	Or		
12	Derive the normal equations relating the auto correlation coefficients and parameters of the predictors in AR, MA and ARMA processes.	C304.2	*U*
13	Derive the expression for the minimum mean squared error in a one step backward linear predictor.	C304.3	*R*
	or		
14	State and explain the properties of the linear prediction-error filters.	C304.3	*U*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	State the differences between Wieners filters meant for filtering and prediction. Describe the steps involved in the design of optimum filter coefficients of FIR Wiener filter using the Wiener Hopf equations.	C304.3	*AZ*
	or		
16	Explain the Procedure in the Levinson-Durbin recursive algorithm.	C304.3	*U*

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Saranathan College of Engineering

Tiruchirappalli – 620012

III-ECE-127

IATest - II			Date/ Session	4.10.2023/FN	Marks	50
Course code	CEC331	Course Title	4G/5G Communication Networks			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	III	Semester/ Section	V/A&B	Department	ECE	

Part – A (10*2=20 Marks)

Part - A

Answer all the Questions **(5x2=10 Marks)**

Q. No.	Questions	CO	Skills
1	Give the 5G radio access spectrum.	C305PE2V83.2	R
2	What do you mean by cloud access technology?	C305PE2V83.2	R
3	What is multi radio access technology?	C305PE2V83.2	R
4	What is EPS bearer for E-UTRAN access?	C305PE2V83.2	U
5	How does session and service continuity mode selection works?	C305PE2V83.3	R
6	List out the functions of RRC layer in 5G NR?	C305PE2V83.3	U
7	Define NAS in 5G.	C305PE2V83.3	U
8	Mention the benefits of MEC in 5G.	C305PE2V83.3	U
9	What is E2E architecture in 5G?	C305PE2V83.3	R
10	What is the difference between SDN and NFV?	C305PE2V83.3	R

Part – B

(Answer all the questions 2 x 10= 20 marks)

Q. No.	Questions	CO	Skills
11	Explain Radio Access Technologies with hardware configuration and Inter RAT handover processing.	C305PE2V83.2	R,U
	Or		
12	Demonstrate in detail about EPC for 5G	C305PE2V83.2	R,U
13	Explain multi access edge computing technique in detail with necessary diagrams.	C305PE2V83.3	R,U
	Or		
14	Explain network slicing in 5G with necessary diagrams	C305PE2V83.3	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain NGAP protocol and GTP-U protocol in detail.	C305PE2V83.3	R,U
	Or		
16	Describe IP sec protocol and GRE protocol used in 5G networks	C305PE2V83.3	R,U

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III-ECE-127

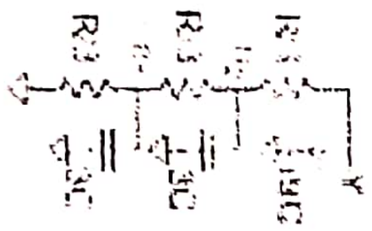
SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli

INTERNAL ASSESSMENT TEST -II			Date/ Session	03.10.2023/FN	Marks	50
Course code	EC3552	Course Title	VLSI AND CHIP DESIGN			
Batch No.		Duration	90 mins	Academic Year	2023- 2024	
Year/	III	Semester/ Sec	05/ A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is charge sharing?	C302.2	U
2	Implement 2:1 MUX using PASS TRANSISTOR Technique.	C302.2	A
3	Find Elmore's delay in node Y. 	C302.2	A
4	What is mean by ratioed logic?	C302.2	R
5	What is Monotonicity problem?	C302.2	U,AZ
6	Draw the CMOS SR Flip Flop circuit.	C302.3	U,AZ
7	Define bistability principle	C302.3	U,R
8	What is meant by Race condition in Clock Overlap?	C302.3	U,R
9	Draw the circuit for Positive Latch using the Transmission Gate. Difference between latches and Flip-flop.	C302.3	U,R
10	Define pipelining	C302.3	U,R

Part – B

(Answer all the questions 2 x 10 =20marks)

Q. No.	Questions	CO	Skills
11.	Explain the following dynamic families with neat diagrams. (i) Dynamic (ii) Domino(iii)Dual-rail domino	C302.2	U,R
	(OR)		
12.	Explain the following Static families with neat diagrams i) Pseudo NMOS logic ii) DCVSL	C302.2	U,R
13.	Explain the Transmission gate based static and dynamic Master slave Edge triggered register with neat diagram and discuss about the effect off overlapping and non-overlapping clks.	C302.3	U,A
	(OR)		
14.	Explain the C^2MOS Register and TSPCR.	C302.3	U,R
	Part -C **(Answer all the questions 1x 10 =10marks)**		
15.	Implement 4:1 Mux using Pass transistor and Transmission gate logic and explain its operation	C302.2	AZ,E
	(OR)		
16.	i) Describe in detail about Layout design rules. (ii) Draw the stick diagram and layout diagram for the CMOS gate computing. $Y = ((A+B+C).D)'$.	C302.2	AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering
Tiruchirapalli

III - ECE 127

Internal Assessment Test - II			Date/ Session	7.10.2023/FN	Marks	50
Course code	EC3501	Course Title	WIRELESS COMMUNICATION			
Batch No.		Duration	90 mins		Academic Year	2023 - 2024
Year/	III	Semester/ Section	V		Department	ECE A & B

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the factors influencing small scale fading?	C301.2	*R*
2	Define: Coherence Time.	C301.2	*U*
3	List the 3 essential criteria which describe a particular channel as fast fading channel.	C301.2	*U*
4	What is meant by Brewster angle?	C301.2	*R*
5	Write the types of propagation mechanisms.	C301.2	*E*
6	Calculate Brewster angle for a wave impinging on ground having relative permittivity of 4.	C301.2	*E*
7	What is Scattering mechanisms?	C301.2	*U*
8	Give the advantages of Digital modulation schemes.	C301.3	*R*
9	Give the function of Gaussian Filter in GMSK.	C301.3	*A*
10	State the advantages of MSK.	C301.3	*R*

Part – B - (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain fading effects due to multipath time delay spread and fading effects due to Doppler Spread.	C301.2	*R*
	or		
12	Describe about the Knife Edge Diffraction model with suitable diagrams.	C301.2	*U*
13	Derive the MSK expression for transmitting binary symbols, and also Discuss about the transmitter and receiver with neat diagrams.	C301.3	*R*
	or		
14	How GMSK is better than MSK. And also explain the De Buda's GMSK Receiver structure with neat diagram.	C301.3	*R*

Part – C - (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A mobile is located 5km away from a base station and uses a vertical $\lambda/4$ monopole antenna with a grain of 2.55dB to receive cellular radio signals. The E-field at 1km from the transmitter is measured to be 10^{-3} V/m. The carrier frequency used for this system is 900MHz. (i) Find the length and gain of the receiving antenna. (ii) Find the received power at the mobile using the 2-ray ground	C301.2	*E*

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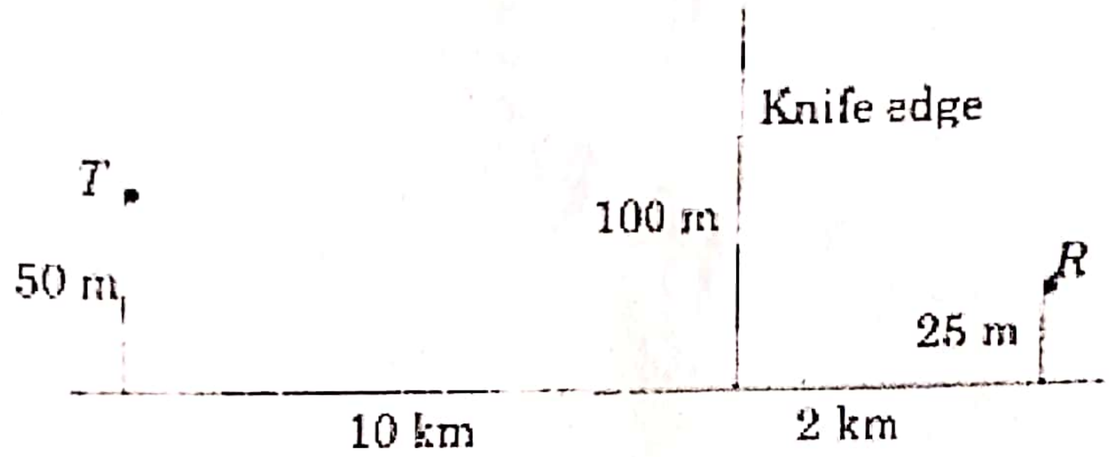
	reflection model assuming the height of the transmitting antenna is 50m and receiving antenna is 1.5m above ground.		
	Or		
16	Given the following geometry, determine (a) the due to knife-edge diffraction, and (b) the height of the obstacle required to induce 6dB diffraction loss. Assume f=900MHz  	C301.2	E

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IV - ECE - 108

Saranathan College of Engineering

Tiruchirappalli – 620012

Internal Assessment Test - II			Date/ Session	7.10.2023 /FN	Marks	50
Course code	EC8701	Course Title	Antenna and Microwave Engineering			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	IV	Semester/ Section	VII/A&B	Department	ECE	

Part – A (20 Marks) - Part – A -Answer all the Questions (10x1=10 Marks)

Q. No.	Questions	CO	Skills
1	State Babinet's principle and how does it give rise to the concept of complementary antenna	C401.2	R
2	State Huygens principle for Aperture antennas	C401.2	R
3	Point out the limitations of a microstrip patch antenna.	C401.2	A
4	Define FNBW and HPBW of aperture antenna	C401.2	R
5	At 2.7GHz, the increase in antenna temperature from Cygnus A with a 20m dish antenna is 51k. Solve the aperture efficiency of the antenna?	C401.2	E
6	Define phased array	C401.3	U
7	Illustrate the meaning and need for the binomial array	C401.3	A
8	Find the directivity of broadside forms of arrays when a uniform linear array contains 50 isotropic radiations with aninter element spacing of $\lambda/2$.	C401.3	A
9	Enumerate the basic principle of reconfigurable antennas	C401.3	U
10	Draw the radiation pattern for broad side and end fire array	C401.3	R

Part – B - (Answer all the questions 2 x 10=20marks)

Q. No.	Questions	CO	Skills
11	With necessary illustrations, assess the radiationcharacteristics of multi element log periodic antenna and mention its possible applications.	C401.2	U,E
	or		
12	Describe the radiation pattern and fields on the axis of an E-plane and H-plane sectoral horns.	C401.2	U,R
13	Find the expression for the field and the radiation pattern produced by a N element array of infinitesimal with distance of separation $\lambda/2$ and currents of unequal magnitude and phase shift 180^0.	C401.3	U,R
	or		
14	(i) Demonstrate the radiation mechanisms of broad sideantenna array and end fire antenna array with neat sketches. (5) (ii) What is binomial array? Draw the pattern of 10 elements binomial array with spacing between the elementsof $3\lambda/4$ and $\lambda/2$.(5)	C401.3	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	A uniform linear array consists of 16 isotropic point sources with a spacing of $\lambda/4$. If the phase difference is -90^o, Determine the directivity, HPBW, beam solid angle and effective apertures	C401.3	U,R
	or		
16	Elaborate in detail about the principle and operation of frequency independent antennas.	C401.3	U,R

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IV-EcE-108

Saranathan College of Engineering

(Approved by AICTE, Newdelhi, Accredited by NAAC with "A+" Grade and Affiliated to Anna University, Chennai)

Tiruchirappalli – 12

Internal Assessment Test – II			Date/ Session	5.10.23/FN	Marks	50
Course code	OIC 751	Course Title	Transducer Engineering			
Batch No.		Duration	90 Mins	Academic Year	2023 – 2024	
Year	IV	Semester/Section	VII / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20 Marks)

Q. No.	Questions	COs	Skills
1	Write the principle of Variable reluctance transducers.	406OE2.4	R
2	Sketch the desired frequency response of a capacitor microphone	406OE2.4	U
3	Write the basic working principle of LVDT	406OE2.4	E
4	What is the basic principle of Inductance potentiometer?	406OE2.4	U
5	What is the principle of strain gauge?	406OE2.3	R
6	State the working principle of piezo-resistive sensor.	406OE2.3	R
7	Write the principle of operation of hotwire anemometer.	406OE2.3	R
8	Enumerate different types of strain gauge.	406OE2.3	U
9	What are the advantages and disadvantages of potentiometer?	406OE2.3	U
10	What is self heating error of thermometer?	406OE2.3	R

Part – B

(Answer all the questions 2 x 10 = 20 Marks)

Q. No.	Questions	COs	Skills
11	Describe the principle of operation, Construction details, and characteristics of LVDT.	406OE2.4	U
	OR		
12	Describe the construction and working of variable reluctance transducer	406OE2.4	R
13	Describe the construction and operation of resistance temperature detector.	406OE2.3	R
	OR		
14	Give the basic principle of potentiometer. Discuss the characteristics of potentiometer and derive an expression for sensitivity.	406OE2.3	U

Part – C

(Answer all the questions 1 x 10 = 10 Marks)

Q. No.	Questions	CO	Skills
15	Explain the principle, construction and working operation of constant current and constant temperature Anemometer.	406OE2.3	R, U
	OR		
16	Describe the principle of operation, construction detail and hygrometer and strain gauge.	406OE2.3	R, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In-charge: **Dr. M. Padmaa, Prof. / ECE& Dr.M.Barithabegum Assoc.prof/ECE**

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Saranathan College of Engineering

Tiruchirappalli – 620012

IV-EeE-108

Internal Assessment Test - II		Date/ Session	3.10.2023/FN	Marks	50
Course code	EC8702	Course Title	Adhoc and Wireless Sensor Networks		
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD
Year/	IV	Semester/ Section	VII/A&B	Department	ECE

Part – A (20 Marks)

Answer all the Questions **(10x2=20 Marks)**

Q. No.	Questions	CO	Skills
1	Write the operational states of transceiver in the sensor node.	C404.2	R
2	Compare Single Hop with Multiple Hops.	C404.2	U
3	Classify the modes of operation of a sensor node	C404.2	A
4	Differentiate between active and passive sensors.	C404.2	R
5	What are the performance requirements for a MAC protocol?	C404.2	U
6	Differentiate flooding and gossiping.	C404.3	U
7	Analyze the pros and cons of scheduled based protocols.	C404.3	R
8	List the objective of PAMAS.	C404.3	U
9	Exhibit how LEACH protocol differs from other routing protocols used in WSN.	C404.3	A
10	Write the concept of wake up radio.	C404.3	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain how the scheduled based MAC protocol differs from the contention based MAC protocol.	C404.3	U
	OR		
12	Describe about the low duty cycle protocols and wakeup concepts and explain any two protocols with relevant diagrams.	C404.3	A
13	(i) Analyze how Optimization Goals and Figures of Merit is realized in wireless sensor network. (ii) Distinguish sensor networks from the mobile ad hoc network.	C404.2	R,U
	OR		
14	Exhibit the performance metrics of wireless sensor network scenarios.	C404.2	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Elaborate the challenges and issues in Transport layer protocol and find the suitable solutions for it.	C404.3	R,U,A
	OR		
16	Explain the LEACH routing with the help of neat diagram. Give its advantages and disadvantages.	C404.3	U,A

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Saranathan College of Engineering

Tiruchirapalli

IV - ECE - 108

Internal Assessment Test - II			Date/Session	/ FN	Marks	50
Course code	EC8791	Course Title	EMBEDDED AND REAL TIME SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023- 2024	
Year	IV	Semester/Section	07 / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Distinguish between PCLK and CCLK	C403.2	AZ
2	For a GPIO pin to be made to act as an ON/OFF switch, what are the registers to be used?	C403.2	AZ
3	Write the difference between single and double edged PWM.	C403.2	R
4	How does the prescalar in a timer unit function?.	C403.2	U
5	Specify the different control word registers used in UART	C403.2	E
6	Mention the different components for embedded programs.	C403.3	R
7	State the basic principle of compilation technique.	C403.3	AZ
8	Name any two techniques used to optimize execution time of program	C403.3	AZ
9	Sketch a Data Flow Graph for the block shown below: r = a+b-c; s = a*r ; t = b-d; r = d+e;	C403.3	C
10	Interpret the differences between loop fusion and loop tiling	C403.3	U,A

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Outline the working of a UART in LPC214x in detail.	C403.2	AZ,U
	(OR)		
12	(i) Calculate the value of the clock to be given in PWMMR0 and PWMMR3 to get a pulse train of period 5 ms and duty cycle of 25%. (5) (ii) List the features of LPC 214x processor (5)	C403.2	E,AZ
13	Explain the various methods for Program optimization with necessary examples.	C403.3	U
	(OR)		
14	Write about i) Black box Testing (5) ii) White box Testing (5)	C403.3	AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills

15	Determine the code generated for the given conditional code snippet, explain with necessary CDFG.
	if (a + b > 0)
	x = 5;
	else
	x = 7;
		C403.3	AZ

	(OR)		
16	Explain about the software performance optimization.	C403.3	AZ,A

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IV - ECE - 108

Saranathan College of Engineering

Tiruchirapalli-12

Internal Assessment Test – II			Date/Session	10.10.23 /FN	Marks	50
Course code	EC8751	Course Title	Optical Communication			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/Section	VII/A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define internal quantum efficiency of a LED	C402.3	U
2	Write two differences between a Laser and a LED	.C402.3	R
3	What are the merits of index guided lasers?	C402.3	R
4	What are direct band gap and indirect band semiconductors?	C402.3	R
5	Define population inversion	C402.3	U
6	What are the merits of index guided lasers?	C402.3	R
7	Why do we prefer laser diodes over LED's for communication applications?	C402.3	U
8	Distinguish between splice and connector.	C402.2	R
9	An optical signal has lost 55%of its power after traversing 3.5 km of fiber. What is the loss in dB/km of this fiber?	C402.2	E,AZ
10	What is meant by mode coupling? What causes it?	C402.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Derive an expression for internal quantum efficiency of LEDS and LED power and external quantum efficiency.	C402.3	AZ
	Or		
12	a(i) Explain surface emitting LED (SLED) (5) (ii) A double heterojunction InGaAsP LED emitting at a wavelength of 1310nm has radiative and non radiative recombination times of 25 and 90ns respectively. The drive current is 35mA(5) a) Find the internal quantum efficiency and internal power level b) If the refractive index of the light source material is n-3.5, find the power emitted from the device	C402.3	U,R
13	a multimode graded index fiber exhibits, Total pulse broadening of 0.1micro seconds over a distance of 15 km. Estimate a) pulse dispersion per unit length b) Maximum possible bandwidth on the link c) Bandwidth length product for the fiber	C402.2	A,U
	Or		
14	Write a brief note on design optimization of single mode fibers	C402.2	U,R
	PART –C (1*10=10 Marks)		
15	Explain the principle operation of a laser diode	C402.3	U
	Or		
16	What do you understand by optical wave confinement and current confinement in LASER diode? Explain with suitable structures.	C402.3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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IV - ECE - 108

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	9.10.2023	Marks	50
Course code	EC8094	Course Title	Satellite Communication			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year/	IV	Semester/ Section	VII / A&B	Department	ECE	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is meant by momentum wheel stabilization?	C410PE5.2	U
2	What does the term 'bus' refer in TT & C?	C410PE5.2	R
3	What is the use of frequency reuse technique in communication subsystem and how it is employed?	C410PE5.2	U
4	Draw the block diagram of antenna subsystem.	C410PE5.2	R
5	Define payload and transponder?	C410PE5.2	U
6	A satellite downlink at 10 GHz operates with a transmit power of 6 W and an antenna gain of 48.2dB. Calculate the EIRP (dBW).	C410PE5.3	E
7	What is noise power spectral density	C410PE5.3	U
8	Write the relationship between EIRP and antenna gain.	C410PE5.3	U
9	A satellite link operating at 14 GHz has receiver feeder losses of 1.5 dB and a free-space loss of 207 dB. The atmospheric absorption loss is 0.5 dB. and the antenna pointing loss is 0.5 dB. Depolarization losses may be neglected.Calculate the total link loss for clear-sky conditions.	C410PE5.3	Az
10	Define sky noise.	C410PE5.3	R

Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Explain the working of telemetry . tracking and control with suitable diagrams.	C410PE5.2	R
	or		
12	Explain Spin Stabilization and Three-axis Stabilization.	C410PE5.2	U
13	List and explain the steps of link power budget analysis for uplink and downlink	C410PE5.3	E
	or		
14	Discuss on the TWTA power amplifier used in a satellite transponder and its power output	C410PE5.3	R,AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	An uplink at 14 GHz requires a saturation flux density of − 91.4 dBW/m2 and an input BO of 11 dB. The satellite [G/T] is − 6.7 dBK-1 and receiver feeder losses amount to 0.6 dB. Calculate the carrier-to-noise density ratio.	C410PE5.3	Az
	Or		
16	In a link-budget calculation at 12 GHz, the free-space loss is 206 dB, the antenna pointing loss is 1 dB, and the atmospheric absorption is 2 dB. The receiver [G/T] is 19.5 dB/K, and receiver feeder losses are 1 dB. The EIRP is 48 dBW. Calculate the carrier-to-noise spectral density ratio.	C410PE5.3	U

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.30.10.2023

Circular

Third Internal Assessment Test for Third Year (5th Sem.) & Final Year (VII Sem.) B.E./B.Tech., Classes will commence from 2nd November 2023 (THURSDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

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Final one

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS NOVEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
2nd November 2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th November 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
6th November 2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	GE8073-Fundamentals of Nanoscience	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th November 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
8th November 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9th November 2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	EI8091-Instrumentationin Petrochemical Industries	IE8693-Production Planning and Control	

124 108 71 49 28 76 23

Principal

final one

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS NOVEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
2nd November 2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	CS3691-Embedded System and IOT	EI3551-Process Control		CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th November 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE301-Power Electronics for Renewable Energy Systems	IT3501-Full Stack Web Development	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
6th November 2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th November 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	
8th November 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
9th November 2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation	ME3592-Metrology and Measurements	CE3025-Airports and Harbours	CCS335-Cloud computing	CCS367-Storage Technologies
	132	125	58	64	19	62	31	63	64

Principal

KS 110	ECE	A	IV	232001-232014	1
KS 111	ECE	A	IV	232015-232029	1
KS 113	ECE	A	IV	232030-232051	2
KS 114	ECE	B	IV	232052-232054,,232110,111,112	2
KS 213	ECE	B	IV	232071-232087	1
KS 215	ECE	B	IV	232088-232108	2
KS 307	ECE	B	IV	232109	1
KS 311	ECE	A	III	242001-242011	1
KS 312	ECE	A	III	242012-242032	2
KS 313	ECE	A	III	242033-242054	2
315	ECE	A/B	III	242055-242062,127, 128,129, 130,131,242064-242071	1
KS 316	ECE	A/B	III	242072-242091	2
BD 201	ECE	B	III	242092-242110	1
BD 202	ECE	B	III	242111-242132	1

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 3 DUTY LIST 2023-2024 ODD SEMESTER

01.11.2023

S.no	STAFF NAME	02.11.2023	04.11.2023	06.11.2023	07.11.2023	08.11.2023	09.11.2023	
	DAY ORDER	III	V	I	II	III	IV	
1	Dr. S.A Arunmozhi				@			1
2	Dr. S Rajeswari			@				1
3	Dr. V Mohan				@			1
4	Dr. P Shanmugapriya							0
5	Dr. M Baritha Begum							0
6	Mr. S Hariprasath	@					@	2
7	Dr. K Malaisamy			@		@		2
8	Ms. P Sivagamasundhari	@	@					2
9	Ms.J.Eindhumathy				@			1
10	Mr. M Mahendran			@		@		2
11	Mr. G Sivakannu		@		@			2
12	Ms. S Kiruthiga					@	@	2
13	Ms. M Anthuvan Lydia	@				@		2
14	Ms. B.Divya			@			@	2
15	Ms. Dr.N.Preethi Elizabeth	@	@					2
16	Mr.A.Kesavan		@				@	2
		4	4	4	4	4	4	24

HOD/ECE

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2/11/23

SARANATHAN COLLEGE OF ENGINEERING
Tiruchirapalli

III - ECE
-125

INTERNAL ASSESSMENT TEST - III			Date/ Session	02.11.2023/FN	Marks	50
Course code	EC3552	Course Title	VLSI AND CHIP DESIGN			
Batch No.		Duration	90 mins	Academic Year	2023- 2024	
Year/	III	Semester/ Sec	05/ A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Write the equation for worst case delay in 4 bit ripple carry adder.	C302.4	AZ
2	Draw the switch level circuit for Manchester carry chain adder.	C302.4	A
3	State radix-2 booth encoding table	C302.4	A
4	Draw the structure of 4 X 4 barrel shifter	C302.4	R
5	List the categories of memory arrays.	C302.4	U,AZ
6	List out the Implementation technologies in ASIC.	C302.5	U,AZ
7	What is Ratio factor?	C302.5	U,R
8	Write the Goals and Objectives of floor planning?	C302.5	U,R
9	State the three important blocks in FPGA architecture.	C302.5	U,R
10	Write about various ways of routing procedure.	C302.5	U,R

Part – B

(Answer all the questions 2 x 10 =20marks)

Q. No.	Questions	CO	Skills
11.	How the drawback in ripple carry adder overcome by carry look ahead adder and discuss.	C302.4	U,R
	(OR)		
12.	Explain in detail about the interconnect.	C302.4	U,R
13.	Explain about wafer to chip fabrication process flow.	C302.5	U,A
	(OR)		
14.	Explain the ASIC Design Flow.	C302.5	U,R
	Part -C **(Answer all the questions 1x 10 =10marks)**		
15.	Describe the process of Automatic test pattern generation (ATPG).	C302.6	AZ,E
	(OR)		
16.	Explain any two approaches of DFT (Design for Testability) in brief with example.	C302.6	AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty (s) :MR.S.HARIPRASATH & MS.J.EINDHUMATHY

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6/11/23

Saranathan College of Engineering
Tiruchirapalli

III - ECE - 'A'

Internal Assessment Test - III			Date/Session	6-11-2023/FN	Marks	50
Course code	EC3551	Course Title	Transmission Lines and RF systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	V Sem A & B Sec	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define the cutoff frequency for the wave guides.	C314.4	R,U
2	Why TEM mode of propagation does not exist in rectangular waveguide?	C314.4	R,U
3	Find the size of the circular waveguide required to propagate TE11 mode if λc=8cm; hnm=1.841	C314.4	R, E
4	Write Bessel's functions of first kind of order zero?	C314.4	R,U
5	Consider an air filled rectangular waveguide with a cross section of 5 cm × 3 cm. For this waveguide, deduce the cut off frequency (in MHz) of TE21 mode.	C314.4	R,E
6	Mention about the dominant mode of a rectangular waveguide.	C314.4	R,U
7	List some of the active RF Components.	C314.5	R,U
8	Outline the characteristics of modulation doped field effect transistor	C314.5	R,U
9	Define reverse active mode in bipolar junction transistor.	C314.5	R,U
10	Classify RF field effect transistors based on physical construction.	C314.5	R,U

Part – B

(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Determine the solution of electric and magnetic fields of TM waves guided along rectangular waveguide.	C314.4	R,U
	Or		
12	The separation between parallel plates of a waveguide is 2cm. It is filled with a dielectric whose relative permittivity is 9. The signal frequency is 6GHz. Find the propagating modes. For each mode calculate the following (i) Cut off frequency (ii) Cut off wavelength (iii) Phase velocity (iv) Guide wavelength	C314.4	R,U,C,A Z
13	An X-band waveguide which is air filled has inner dimensions of a=2.286cm and b=1.016cm. Calculate the cut off frequencies of the following modes: TE10, TE20, TE11, TM11, TM 21 and TM12. Also find out which of the modes will propagate along the waveguide and which of them will evanesce, when the signal frequency is 10GHz. Also determine the variations in the cut off frequency of TM11 mode if the dimensions are increased by a factor of 10.	C314.4	R,U,C,A Z,E
	Or		
14	Determine the solution of electric and magnetic fields of TE waves guided along circular waveguide.	C314.4	R,U,AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

15	(i)Explain the working of BJT at RF frequencies.(6) (ii)For a Si pn junction the doping concentration are given as $N_A = 10^{18}$ cm^{-3} and $N_D = 10^{15}$ cm^{-3} with an intrinsic concentration of ni = 1.5 x 10^{10}cm-3. Find the barrier voltage for T = 300° K.(4)	C314.5	R,U,AZ,E
	Or		
16	Describe the operation of the following devices (i) Schottky diode (ii) HEMT (iii) HBT (iv) MESFET	C314.5	R,U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill is mentioned against each question

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4/11/2023

Saranathan College of Engineering
Tiruchirappalli – 620012

III – BE – 125

IATest - III			Date/ Session	04.11.2023/FN	Marks	50
Course code	CEC331	Course Title	4G/5G Communication Networks			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	III	Semester/ Section	V/A&B	Department	ECE	

Part – A (10*2=20 Marks)

Part - A

Answer all the Questions

Q. No.	Questions	CO	Skills
1	Write short notes on MICO mode.	C305PE2V83.4	R
2	Define RA and SA	C305PE2V83.4	R
3	Draw the mapping between 5G GUTI and EPS GUTI	C305PE2V83.4	R
4	Define spectrum sharing	C305PE2V83.4	R
5	What is millimeter wave?	C305PE2V83.4	R
6	Define cognitive radio network.	C305PE2V83.4	U
7	List service requirements	C305PE2V83.5	U
8	Define integrity protection	C305PE2V83.5	U
9	Mention about SBA domain security.	C305PE2V83.5	R
10	List the Security requirements in 5G Networks.	C305PE2V83.5	R

Part – B

(Answer all the questions 2 x 10= 20 marks)

Q. No.	Questions	CO	Skills
11	Explain N2 management in detail	C305PE2V83.4	R,U
	Or		
12	Sketch on spectrum sharing with Mobility management	C305PE2V83.4	R,U
13	Interpret Security features in 5G networks and elaborate on mitigating the threats in 5G.	C305PE2V85.5	R,U
	Or		
14	Explain (i) User Domain Security (ii) Network Domain Security	C305PE2V83.5	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain N 26 interface in mobility management	C305PE2V83.4	R,U
	Or		
16	Interpret cognitive radio Networks based on 5G Technology.	C305PE2V83.4	R,U

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08/11/2023

III-ECE-125

SARANATHAN COLLEGE OF ENGINEERING
Tiruchirapalli

INTERNAL ASSESSMENT TEST - III		Date/ Session	08.11.2023/FN	Marks	50
Course code	CEC342	Course Title	Mixed signal IC design Testing		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year/	III	Semester/ Sec	05/ A & B	Department	ECE

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define conversion time	CEC342.3	U,R
2	What is meant by overshoot and Undershoot?	CEC342.3	U,R
3	Define glitch.	CEC342.3	U,R
4	Define rise time and fall time.	CEC342.3	U,R
5	Compare synchronous and asynchronous communication	CEC342.5	U,R
6	Distinguish between clock skew and jitter.	CEC342.5	U,AZ
7	What is meant by time, periodic and cyclic jitter?	CEC342.5	U,AZ
8	The PSD of the instantaneous phase of a 10-MHz clock signal is described by $S\varphi(f) = 10^{-8}/10^4 + f^2$ in units of rad^2/Hz. What is the phase noise of the clock at a 1000-Hz offset in dBc/Hz?	CEC342.5	U,R
9	A set of 8 samples was extracted from a received signal with respect to a reference clock having the following instantaneous time jitter values: [1 ps, 1 ps, -2 ps, 3 ps, 1 ps,0 ps, -1 ps, 5 ps]. What is the mean, standard deviation and peak-to-peak values?.	CEC342.5	U,R
10	Draw the PSD of an ideal clock signal and jittered clock signal.	CEC342.5	U,AZ

Part – B - (Answer all the questions 2 x 10 =20marks)

Q.No.	Questions	CO	Skills
11.	Explain in detail about dynamic DAC testing.	CEC342.3	U,R
	(OR)		
12.	Discuss briefly about various tests for common DAC applications.	CEC342.3	U,AZ
13.	Explain in detail about time domain attributes of a clock signal.	CEC342.5	U, R
	(OR)		
14.	Explain in detail about frequency domain attributes of a clock signal	CEC342.5	U,R
	Part -C (Answer all the questions 1x 10 =10marks)		
15.	a. Determine the convolution of two impulse functions centered at V_{ss} and V_{dd} with a Gaussian function with zero mean and standard deviation b. A logic 0 is transmitted at a nominal level of 0 V and a logic 1 is transmitted at a nominal level of 2.0 V.Each logic level has equal probability of being transmitted .If A 150-mV rms Gaussian noise signal is assumed to be present at the receiver.what is the probability of making an single trial bit error if the detector threshold is set at 1.0V.	CEC342.5	AZ,U
	(OR)		
16.	Explain briefly about the impact of decision levels on receiver performance	CEC342.5	AZ,U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty (s) : ***Dr.C.VENNILA&Dr.M.PADMAA***

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9/11/23

III-ECE-125

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	/11/2023 FN	Marks	50
Course code	CEC332	**Course Title**	ADVANCED DIGITAL SIGNAL PROCESSING			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year/	III	**Semester/ Section**	V	**Department**	ECE A & B	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List the applications of adaptive filters.	C304.4	*R*
2	What is the principle of LMS algorithm.	C304.4	*U*
3	Summarize the steps used in the Steepest Descent Algorithm.	C304.4	*U*
4	What is the advantage of adaptive filters over Wiener filters?	C304.4	*U*
5	Draw the block diagrams of an adaptive noise canceller and a system identification model.	C304.4	*E*
6	Define periodogram.	C304.5	*U*
7	List the properties of Bartlett's method.	C304.5	*E*
8	Write the power spectrum equation of AR model.	C304.5	*R*
9	Differentiate parametric method from non-parametric method.	C304.5	*R*
10	Determine the % offset or % overlap in Welch's power spectral estimation given the number of points as 512, Section length = 128, number of sections =13.	C304.5	*R*

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain about a general FIR adaptive filter with relevant block diagram.	C304.4	*R*
	Or		
12	Derive the weight update equations used in LMS algorithm.	C304.4	*U*
13	Explain in detail about the Welch method of non parameric power spectrum estimation.	C304.5	*R*
	or		
14	Derive the expression for AR and MA methods paramteric spectrum estimation.	C304.5	*R*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about the applications of adaptive filter with neat block diagrams.	C304.4	*E*
	or		
16	Explain in detail about the adaptive filters based on steepest descent algorithm.	C304.4	*AZ*

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IV-ECE-108

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	09.11.23/FN	Marks	50
Course code	EC8751	Course Title	OPTICAL COMMUNICATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII/A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the significance of rise time budget?	C402.5	R
2	Compare doped fiber amplifiers and conventional repeaters	C402.5	U,A
3	What is DWDM?	C402.5	U
4	Obtain the transmission bit rate of the basis SONET frame in Mbps	C402.5	U
5	what are the key parameters requiring for analyzing the optical link	C402.5	R
6	What are the requirements of an optical receiver?	C402.4	R
7	A trigonometrical measurement is performed in order to determine the numerical aperture of a step index fiber. The screen is positioned 10.0 cm from the fiber end face. When illuminated from a wide angled visible source the measured output pattern size is 6.2 cm. Calculate the approximate numerical aperture of the fiber	C402.4	A
8	Distinguish between splice and connector	C402.4	R
9	Mention the different techniques used for measurement of fiber refractive profile	C402.4	E
10	Why do we prefer trans-impedance preamplifier rather than high impedance preamplifier?	C402.4	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Draw the block diagram of fundamental optical receiver and explain each block in detail.	C402.4	R
	Or		
12	What are the various types of pre-amplifier available for optical network? Explain any three of them with circuit diagram.	C402.4	U
13	Explain (i) fiber attenuation measurement (ii) fiber refractive index profile measurement	C402.4	E
	Or		
14	Explain Quantum limit and Probability of error with respect to receiver? A digital fiber optic link operating at 850 nm requires a maximum BER of 10^□9.Cite the quantum limit in terms of the quantum efficiency of the detector and the energy of the incident photon	C402.4	R
	PART –C (1*10=10 Marks)		
15	Explain the architecture of SONET/SDH with a neat diagram.	C402.3	U
	Or		
16	With neat diagram write notes on (i) OADM configuration (ii) WDM and EDFA	C402.3	R,U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

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Saranathan College of Engineering

Tiruchirappalli – 620012

IV-ECE-108

Internal Assessment Test - III			Date/ Session	02.11.2023/ FN	Marks	50
Course code	EC8702	Course Title	Adhoc and Wireless Sensor Networks			
Batch No.		Duration	90 mins		Academic Year	2023 – 2024/ODD
Year	IV	Semester/ Section	VII/A&B		Department	ECE

Part – A (20 Marks)

Answer all the Questions(10x2=20 Marks)

Q. No.	Questions	CO	Skills
1	What is security provisioning?	C404.4	R
2	In WSN, the data is flooded in the network. Which IP address is used for flooding ? Is flooding, a unicast / multicast / broadcast ?	C404.4	U
3	Examine the impacts of denial-of-service attacks in sensor networks.	C404.4	A
4	Define a black hole attack.	C404.4	R
5	How does misdirections affect the routing in sensor networks?	C404.4	U
6	List the challenges of sensor network programming.	C404.5	U
7	Present an outline of berkeley motes.	C404.5	R
8	How does Tiny OS support Berkeley mote?	C404.5	U
9	Express the need for nesC .language for sensor network programming	C404.5	R
10	Name any two node-level simulators for wireless sensor networks	C404.5	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the key management Techniques and its procedure	C404.4	U
	OR		
12	Explain layer wise attack and its solution in detail.	C404.4	A
13	Describe the characteristics of embedded sensor nodes family with the help of MICA mote architecture..	C404.5	R,U
	OR		
14	Outline the features of node-level simulators for wireless sensor networks.	C404.5	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	What is the need of security for routing protocol? Also, explain the secured routing protocol using SPIN	C404.4	R,U,A
	OR		
16	Evaluate how the jamming affects the functional characteristics of Wireless sensor networks in real time environment	C404.4	U,A

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04/11/23

Saranathan College of Engineering

Tiruchirapalli

IV-ECE-108

Internal Assessment Test - III			Date/Session	04.11.2023/ FN	Marks	50
Course code	EC8791	Course Title	EMBEDDED AND REAL TIME SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/Section	07 / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Performance measures for real time systems.	C403.4	R
2	Outline the definition for a schedule as a function.	C403.4	U
3	Mention the limitation of the RM algorithm.	C403.4	R
4	What is the important metric used for evaluating the performance of an embedded system?	C403.4	R
5	Give an example of feedback scheduling?	C403.4	R
6	List the advantages and limitations of Priority based process scheduling.	C403.5	U
7	What is priority inheritance and priority inversion?	C403.5	AZ
8	Compare the major functionalities of POSIX RTOS and Windows CE.	C403.5	R
9	What is the difference between the ready and waiting states of process scheduling?	C403.5	AZ
10	What is the concept of multitasking?what does it signify?	C403.5	AZ

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(a) With a neat diagram, describe the structure of a real time system. (b) Discuss in detail about the timing requirements with respect to release time and deadline for different types of processes.	C403.4	AZ
	(OR)		
12	Mention the classification of faults according to their temporal behavior and output behavior.	C403.4	R
13	With neat sketches, explain briefly about the various types of interprocess communication.	C403.5	R
	(OR)		
14	Explain the concepts of Multiprocessor System-On-Chip (MPSoC) and Shared memory multiprocessors used in embedded applications.	C403.5	A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Illustrate video accelerator using UML methodology, from design flow analysis to architectural design.	C403.6	AZ
	(OR)		
16	Explain Multitasking, Multiple Process in embedded platform.	C403.6	E

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Saranathan College of Engineering

Tiruchirappalli – 620012

IV - ECE - 108

Internal Assessment Test - III			Date/ Session	07.11.2023/ FN	Marks	50
Course code	EC8701	Course Title	Antenna and Microwave Engineering			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	IV	Semester/ Section	VII/A&B	Department	ECE	

Part – A (20 Marks)

Part - A

Answer allthe Questions **(10x1=10Marks)**

Q. No.	Questions	CO	Skills
1	What are the features of power divider and give some examples of power dividers.	C401.4	R
2	Differentiate attenuator and resonator.	C401.4	R
3	Exhibit the negative resistance property in Gunn diode.	C401.4	U
4	Why magnetron is called as cross field device?	C401.4	R
5	Explain the operation of PIN diode.	C401.4	U
6	Draw the equivalent circuit of a Gunn diode	C401.4	U
7	Define velocity modulation	C401.4	R
8	List the basic parameters to measure the performance of a directional coupler.	C401.4	R
9	Define Impedance matching.	C401.5	U
10	Name the factors used for selecting a matching network	C401.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.		Questions	CO	Skills
11	(i) (ii)	With the help of a neat diagram describe the magic Tee working principle. Find scattering matrix and applications of magic Tee.	C401.4	U,E
		or		
12	(i) (ii)	Explain the working principle of reflex klystron oscillator with necessary diagrams. Derive velocity modulation, transit time of reflex klystron oscillator	C401.4	U,R
13		Explain the concepts of matching networks and discuss the design issues for the same.	C401.5	U,R
		or		
14		What is the need for stub matching? Explain the steps to design single stub and double stub matching?	C401.5	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Illustrate with interaction region diagram the mechanism of operation of TWT amplifier, its applications and the expression for the gain of a TWT.	C401.4	U,R
	or		
16	(i)What are avalanche transit time devices? Explain the operation and construction of IMPATT diode (ii)Explain mechanism of oscillation of IMPATT and as power amplifier.	C401.4	U,R

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Saranathan College of Engineering

Tiruchirapalli

IV - ECE - 108

Internal Assessment Test - III			Date/ Session	08 .11.2023	Marks	50
Course code	EC8094	Course Title	Satellite Communication			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year/	IV	Semester/ Section	VII / A&B	Department	ECE	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the function of BCW in a TDMA frame?	C410PE5.4	U
2	Explain the need for a reference burst in a TDMA system	C410PE5.4	R
3	What is the use of control bits in the data frame	C410PE5.4	U
4	What do you mean by demand assignment access and state the methods used for the access?	C410PE5.4	R
5	What are the advantages of TDMA over FDMA?	C410PE5.4	U
6	Define SCPC. How does the spread spectrum system differ from conventional communication systems?	C410PE5.4	E
7	Give the satellite mobile services. Or write down the names of any four mobile satellite services.	C410PE5.4	U
8	Give the diagrammatic representation of a SPADE system.	C410PE5.5	U
9	Bring out the salient features and applications of INTELSAT series of satellites.	C410PE5.5	Az
10	What does the acronym VSAT stands for ?	C410PE5.5	R

Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	In detail explain about the time division multiplexing and bandwidth requirements in a satellite transmission system.	C410PE5.4	R
	or		
12	(i) Describe spectrum spreading and dispreading in a basic CDMA system. Also, explain how the spread-spectrum technique minimizes interference. ii) Briefly describe video compression scheme with a neat block diagram.	C410PE5.4	U
13	Discuss on INTELSAT series and INSAT services in detail	C410PE5.5	E
	or		
14	Explain the characteristics of a typical VSAT system and Key Components for a VSAT network.	C410PE5.5	R.AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	i) Briefly describe the ways in which demand assignment may be carried out in an FDMA network. (5) ii) What is the function of : a) the burst-code word and b) the carrier and bit-timing recovery channel in a TDMA burst ? (5)	C410PE5.4	Az
	Or		
16	In a TDMA network the reference burst and the preamble each requires 560 bits, and the nominal guard interval between bursts is equivalent to 120 bits. Given that there are eight traffic bursts and one reference burst per frame and the total frame length is equivalent to 40, 800 bits, calculate the frame efficiency.	C410PE5.4	U

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Tiruchirappalli – 12

IV - ECE - 108

Internal Assessment Test – III			Date/ Session	14 ~~06~~ – 11 – 2023FN	Marks	50
Course code	OIC 751	Course Title	Transducer Engineering			
Batch No.		Duration	90 Mins	Academic Year	2023 – 2024	
Year	IV	Semester/Section	VII / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20 Marks)

Q. No.	Questions	COs	Skills
1	Write the principle of Variable reluctance transducers.	406OE2.4	R
2	Sketch the desired frequency response of a capacitor microphone	406OE2.4	U
3	Write the basic working principle of LVDT	406OE2.4	E
4	What is the basic principle of Inductance potentiometer?	406OE2.4	U
5	What are the different types of Strain gauges?	406OE2.4	R
6	What is meant by bimorph twisters?	406OE2.5	R
7	What is Villari effect?	406OE2.5	R
8	Write the principle of piezoelectric transducer	406OE2.5	U
9	How a smart sensor differs from ordinary sensor?	406OE2.5	U
10	Define Hall Effect transducer	406OE2.5	R

Part – B

(Answer all the questions 2 x 10 = 20 Marks)

Q. No.	Questions	COs	Skills
11	Describe the principle of operation, Construction details, and characteristics of LVDT.	406OE2.4	U
	OR		
12	Describe the construction and working of variable reluctance transducer	406OE2.4	R
13	With suitable diagram, explain any two types of magnetstrictive transducer	406OE2.6	R
	OR		
14	Explain in detail about digital displacement transducer with suitable diagram.	406OE2.6	U

Part – C

(Answer all the questions 1 x 10 = 10 Marks)

Q. No.	Questions	CO	Skills
15	How the temperature and liquid level is measured using fibre optic transducer	406OE2.5	R, U
	OR		
16	How the torque and pressure is measured using piezoelectric transducer	406OE2.5	R, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In-charge: **Dr. M. Padmaa, Prof. / ECE& Dr.M.Barithabegum Assoc.prof/ECE**

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

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SARANATHAN COLLEGE OF ENGINEERING
Tiruchirapalli – 12

Second Year — FIRST IA TEST FOR I AND II Year _ October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 1 (II Year) DUTY LIST 2023-2024 ODD SEMESTER

29.10.2023

S.no	STAFF NAME	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	04.11.2023	
		V	I	II	III	IV	V	
1	Dr. S.A Arunmozhi							0
2	Dr. S Rajeswari							0
3	Dr. V Mohan							0
4	Dr. P Shanmugapriya	@						1
5	Dr. M Baritha Begum				@			1
6	Mr. S Hariprasath						@	1
7	Dr. K Malaisamy				@			1
8	Ms. P Sivagamasundhari			@				1
9	Ms.J.Eindhumathy			@				1
10	Mr. M Mahendran	@						1
11	Mr. G Sivakannu		@					1
12	Ms. S Kiruthiga					@		1
13	Ms. M Anthuvan Lydia			@				1
14	Ms. B.Divya						@	1
15	Ms. Dr.N.Preethi Elizabeth		@					1
16	Mr.A.Kesavan					@		1
		2	2	3	2	2	2	13

M. Baritha

INTERNAL ASSESSMENT TEST I -I/II YEAR BE/B.TECH - ODD SEM 2023-24

SEATING ARRANGEMENT

ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
RV 301	ECE	A	II	252001-252019	17
RV 302	ECE	A	II	252020-252034	15
RV 303	ECE	A	II	252035-252050	16
RV 304	ECE	A/B	II	252051-252064	15
RV 305	ECE	B	II	252065-252080	16
RV 306	ECE	B	II	252081-252096	16
RV 307	ECE	B	II	252097-252112	16
RV 316	ECE	B	II	252113-252124	12

H. Shaj

)-CH-A	IT	A	I	264001-264018	18
)-CH-B	IT	A	I	264019-264036	18
)-CH-C	IT	A	I	264037-264054	18
)-CH-L	IT	A	I	264055-264062	8
V 303	MECH	A	I	266001	1
V 304	MECH	A	I	266002-266016	15
V 305	MECH	A	I	266017-266032	16
V 306	MECH	A	I	266033-266048	16
V 307	MECH	A	I	266049-266053	5
D-205	MECS	A	I	262501-262505	5

M. Reddy

30.10.2023

II-ECE-A 122

Saranathan College of Engineering
Tiruchirapalli

30th

Internal Assessment Test - I			Date/Session	30.10.2023 / FN	Marks	50
Course code	MA3355	Course Title	RANDOM PROCESSES & LINEAR ALGEBRA			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III / A & B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Let X and Y have the joint probability mass function Y \ X: 0: 0.1, 0.4, 0.1; 1: 0.2, 0.2, 0 Find $P(X+Y>1)$ and $E(XY)$.	CO2	U
2	If the joint pdf of a random variable (X,Y) is $f(x,y)=k(x^3y+xy^3), 0\le x\le 2, 0\le y\le 2$, Find k.	CO2	A
3	The joint pdf of (X,Y) is given by $f(x,y)=\begin{cases}4xy, 0<x<1, 0<y<1\\ 0, \quad otherwise\end{cases}$ Find $P(X+Y<1)$.	CO2	E
4	Given the two regression lines 3X +12Y = 19 and 3Y +9X = 46, find the co-efficient of correlation between X and Y.	CO3	AN
5	Let (X,Y) be a continuous Bivariate random variable. If X and Y are independent random variables then show that X and Y are uncorrelated.	CO3	U
6	State the axioms of probability.	CO1	R
7	If $(A)=\frac{1}{3}, P(B)=\frac{3}{4}$ and $P(AUB)=\frac{11}{12}$, find $P(A/B)$ and $P(B/A)$.	CO1	A
8	If $(A)=0.35, P(B)=0.75$ and $P(AUB)=0.95$, find $P(\bar{A}U\bar{B})$.	CO1	A
9	Two fair dice are tossed. Find the probability of the outcome of the second die is greater than the outcome of the first die.	CO1	U
10	The probability that a contractor will get a plumbing contract is 2/3 and the probability that he will not get an electric contract is 5/9. If the probability of getting at least one contract is 4/5. What is the probability that he will get both the contracts?	CO1	U

Part – B
(Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO	Skills
11.	Consider an experiment of drawing randomly three balls from an urn containing two red, three white, and four blue balls. Let (X, Y) be a bi-variate random variable where X and Y denote respectively the number of red and white balls chosen. (i) Find the range of (X, Y) (ii) Find the joint probability mass function of (X, Y) (iii) Find the marginal probability function of X and Y. (iv) Are X and Y independent?	CO2	A
	(Or)		

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12.	The joint p.m.f of (X, Y) is given by $p(x, y) = k(2x + 3y)$, $x = 0, 1, 2$; $y = 1, 2, 3$. Find all the marginal, conditional probability distributions. Also find the probability distribution of $(X + Y)$.	CO2	AN
13.	Let the joint p.d.f of a R.V. (X,Y) be given by $f(x, y) = \begin{cases} Cxy^2, 0 \le x \le y \le 1 \\ 0 \quad ,otherwise \end{cases}$ Determine (i) value of C (ii) the marginal p.d.f's of X and Y (iii) the conditional p.d.f of X given $Y = y$.	CO2	E
	(Or)		
14.	If X and Y are independent RVs with p.d.f's $e^{-x}; x \ge 0$ and $e^{-y}; y \ge 0$ respectively, find the p.d.f's of $U = \frac{X}{X+Y}$ and $V = X + Y$. Are U and V independent?	CO2	E
15.	The joint p.d.f of the two dimensional r.v. (X,Y) is $f(x, y) = \frac{1}{3}(x + y), 0 \le x \le 1, 0 \le y \le 2$. Find the equations of two lines of regression.	CO3	A
	(Or)		
16.	(a) Find the coefficient of correlation between industrial production & export using the following data: Production(x): 55 56 58 59 60 60 62 Export (y): 35 38 37 39 44 43 44 (b) If $X_1, X_2, \ldots, X_n$ are Poisson variates with parameter $\lambda = 2$. use Central limit theorem to estimate $P(120 \le S_n \le 160)$, where $S_n = X_1 + X_2 + \cdots + X_n$ and $n = 75$.	CO3	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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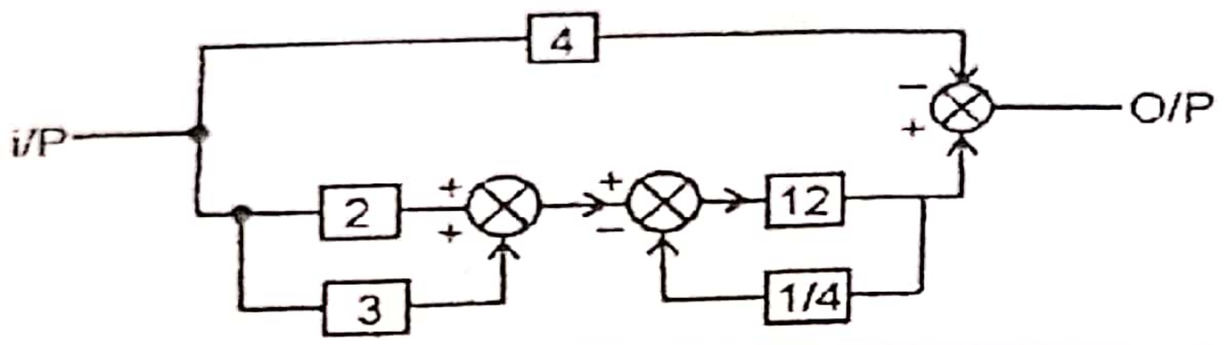
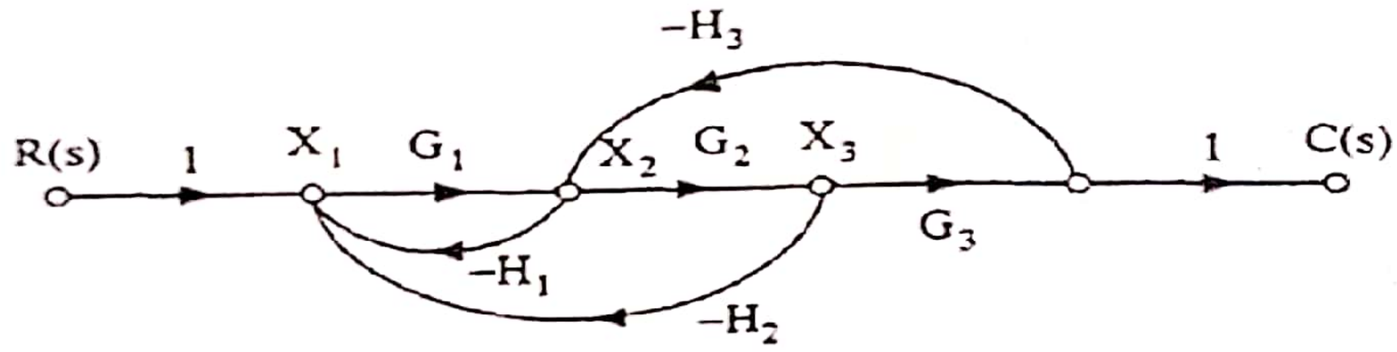
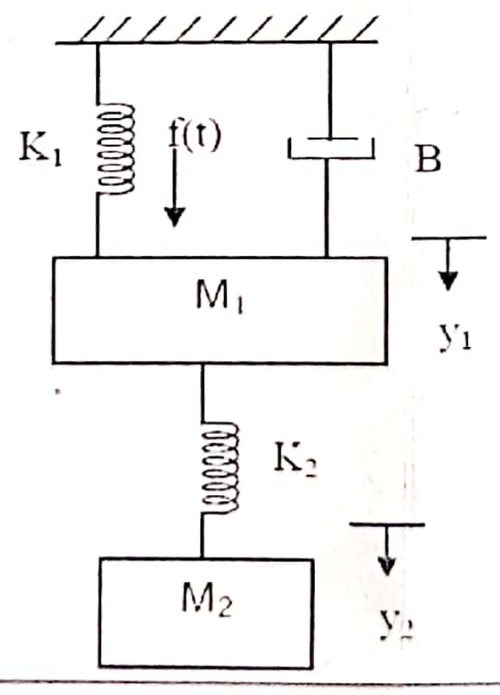
Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/Session	01.11.2023 / FN	Marks	50
Course code	EC3351	Course Title	CONTROL SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/Section	03 / A & B	Department	ECE	

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define transfer function of a system.	C205.1	R
2	Differentiate closed loop & open loop control system	C205.1	R
3	Determine the gain of the following system 	C205.1	AZ
4	Find Δ for the following SFG 	C205.1	A
5	Tabulate the conversion from Torque – Voltage Analogy	C205.1	AZ
6	Find the order of the system and type number. G(S)=20(S+2) / (S(S+1) (S+5))	C205.2	AZ
7	With reference to time response of a control system, define peak time.	C205.2	R
8	What will be the nature of response of a second order system with different types of damping?	C205.2	R
9	The closed-loop transfer function of second order system is given below. Determine it's damping ratio and natural frequency of oscillation. $C(S)/R(S) = 400/ S^2 +6S +400$	C205.2	E,AZ
10	What is meant by transient and steady state response?	C205.2	R

Part – B- (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Determine the transfer function Y2(S)/F(S) of the system shown in fig. 	C205.1	E
	(OR)		

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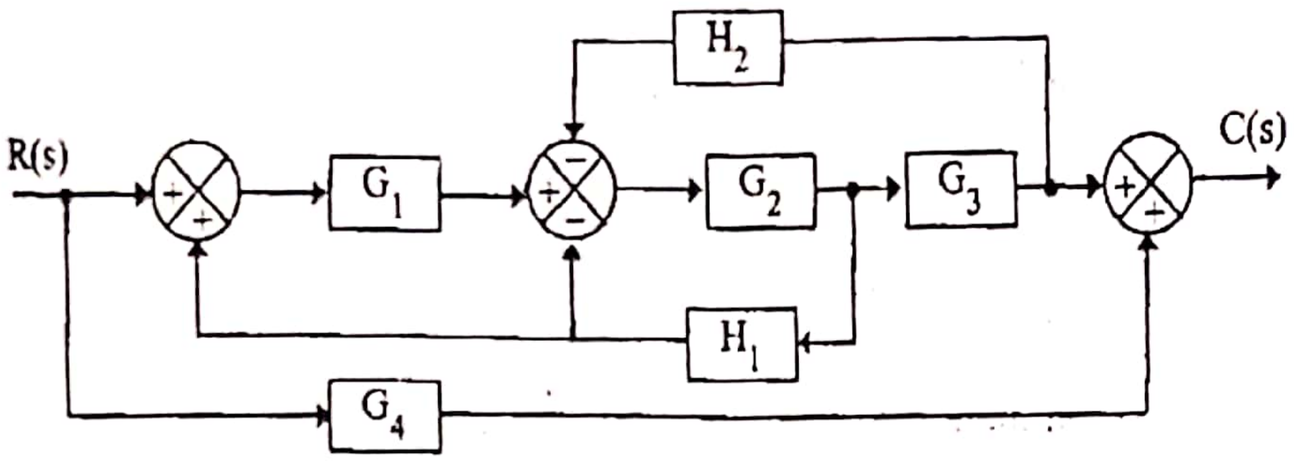
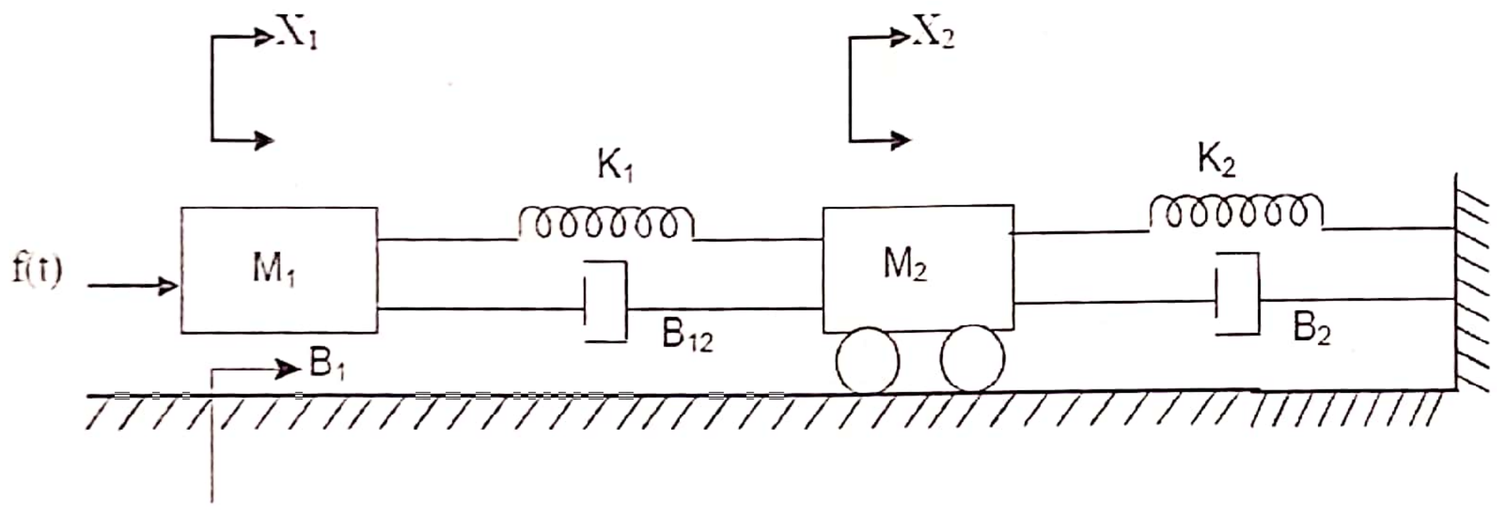
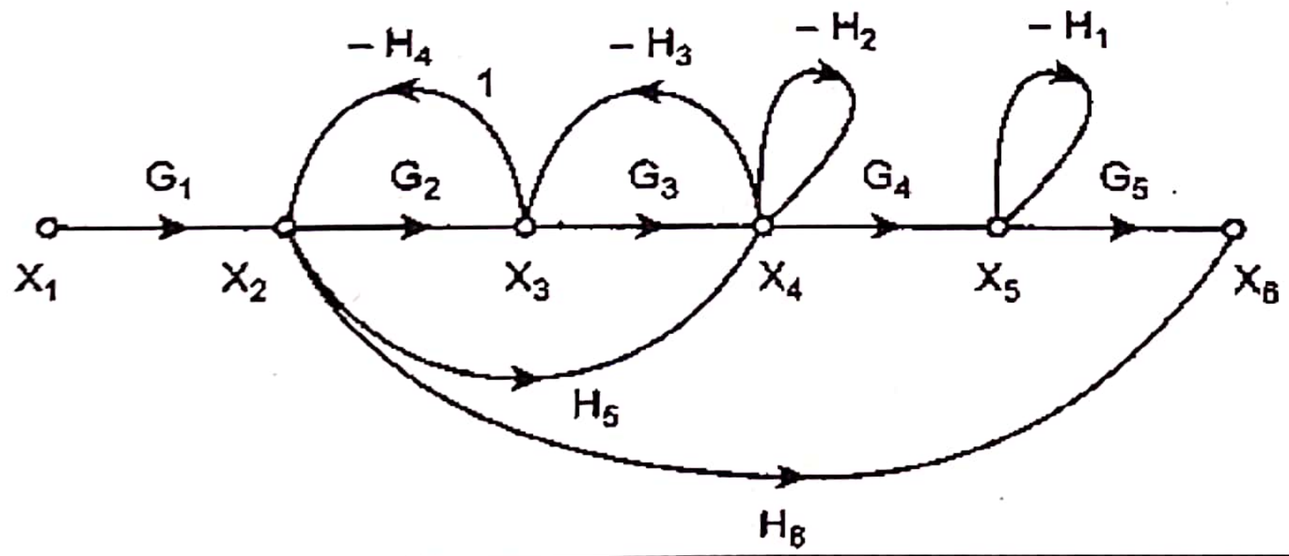
12	Consider the block diagram shown in fig. Using reduction technique, obtain C(s)/R(s) 	C205.1	E
13	Write the differential equations governing the mechanical systems shown below. Draw the force-voltage and force-current electrical analogous circuits and verify by writing mesh and node equations. 	C205.1	C
	(OR)		
14	Find the Transfer Function for the signal flow graph shown in fig. 	C205.1	E

Part – C

(Answer all the questions 1 x 10 = 10marks)

15	A unity feedback system is characterized by an open loop transfer function G(s)=K/s(s+10). Determine the gain K, so that the system will have damping ratio of 0.5 for this value K. Determine the peak overshoot and time at peak overshoot for a unit step input.	C205.2	A,E
	(OR)		
16	Derive the expressions and draw the response of second order under damped system for unit Step input.	C205.2	AZ,E

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02-11-2023

Saranathan College of Engineering II-EcE-122

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	02.11.2023/FN	Marks	50
Course code	EC3352	Course Title	Digital System Design			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year/	II	Semester/ Section	III /A & B	Department	ECE	

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	State De-Morgan's theorem and mention its use	C206.1	R
2	State consensus law and prove it.	C206.1	R,A
3	Implement EX-OR gates using 4 NAND	C206.1	A
4	Convert (101101.10101)2 to decimal and octal	C206.1	A
5	Define 'Min term' and 'Max term'.	C206.1	R
6	What are the limitations of the Karnaugh map?	C206.1	U
7	Define prime implicant and essential prime implicant.	C206.1	R
8	Why NAND and NOR are called universal gates?	C206.1	U
9	Define combinational circuit with example	C206.2	R
10	Define gray code and give its application.	C206.2	R

Part – B- (Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(i) Plot the following function using K map and simplify it F(W,X,Y,Z) = ∑m(0,1,2,4,5,6,8,9,10,12,13,14) in SOP (ii) Implement the above expression as logic circuit using NAND gate	C206.1	AZ, A
	Or		
12	Reduce the following functions using Karnaugh Map (i) $F(A,B,C) = \sum_m (0,1,3,7) + \sum_d (2,5,6)$, (ii) $F(W,X,Y,Z) = \sum_m (0,1,7,8,9,10,12,15) + \sum_d (2,5,13)$	C206.1	AZ
13	Design Half subtractor and Full subtractor with truth table and circuit diagram. Try to implement the Full subtractor using two half subtractor	C206.2	AZ
	Or		
14	Design Excess 3 to Binary coded decimal convertor using K Map. And draw the corresponding logic diagram	C206.2	A

Part – C- (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Simplify the following 5 variable Boolean expression using Mc Cluskey method. F= ∑m(0,1,9,15,24,29,30) + d(8,11,31).	C206.1	A
	Or		
16	(i) Minimize the following expressions using K-Map a) Y= A'BC'D' + A'BC'D + ABC'D' + AB'C'D +A'B'CD'. b) $G=\Pi_M (0,1,3,7,9,11)$ (ii) Positive logic of NOR gate is equal to negative logic of NAND gate? justify your answer	C206.1	A

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04.11.2023

Saranathan College of Engineering
Tiruchirapalli

II-ECE-122.

Internal Assessment Test - I			Date / Session	04.11.2023 / FN	Marks	50
Course code	CS3353	Course Title	C Programming and Data Structures			
Batch No.		Duration	09.15 am to 10.45 am	Academic Year	2023-2024	
Year	Second Year	Semester/Section	III/A/B	Department	ECE	

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q.No.	Questions	CO	Skills
1	Define variables. List the rules to apply variables	C202.1	R
2	What are Data Types in C? Give its types.	C202.1	R
3	Distinguish between while and do-while.	C202.1	E
4	Write a C program to print Sum of n numbers using While loop.	C202.1	C
5	Differentiate Recursion and Iteration.	C202.1	E
6	How Call-by-value is differed from Call-by-reference?	C202.1	E
7	Define an Array. How to initialize array in C?	C202.1	U
8	What is Self-referential structure?	C202.2	R
9	Compare Structure with Union.	C202.2	AZ
10	Write a C program to display Name of the colours using an enumerated type.	C202.2	C

Part – B - (Answer all the questions 2 x 10 = 20marks)

Q.No.	Questions	CO	Skills
11	i) List all the Operators in C. Explain the types of Operators with syntax and example. (6) ii) Write a C program to get a 4 digit number and display the reverse of the same number. (4)	C202.1	R,U A
	Or		
12	Explain Decision Making and conditional Statements in detail. (10)	C202.1	U C
13	i) Define Function. Explain types of Function with respect to its arguments and return values. (5) ii) Write a C program to get 2 numbers and exchange those numbers using Pass by value and Pass by reference. (5)	C202.1	R C, A
	Or		
14	i) Explain 2-dimensional array with an example program. (5) ii) Develop a Matrix in C to print the output: (5) $\begin{pmatrix} \{1,2\} , \{3,4\} \\ \{5,6\} , \{7,8\} \\ \{9,10\},\{11,12\} \end{pmatrix}$	C202.1	R A

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Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	i) Define Structure. How to initialize Structure in C? (6) ii) Write a C program to count a number of digits in an integer (4)	C202.2	U A
	Or		
16	i) Discuss on array of union variable with illustrative example. (5) ii) Create a C program to identify Smallest of 3 numbers using Union. (5)	C202.2	A C

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·11-2023·

II-ECE-122

Saranathan College of Engineering
Tiruchirappalli - 620012

Internal Assessment Test - I			Date/Session	3.11.2023/FN	Marks	50
Course code	EC3354	Course Title	SIGNALS AND SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023-2024/ODD	
Year	II	Semester	III/ A & B	Department	ECE	

Part – A (20 Marks)

(10x2=20Marks)

Answer allthe Questions

Q. No.	Question	CO	Skills
1	What are the various types to represent discrete time sequences?	C204.1	U R
2	Check whether the given system $y[n] = x[-n]$ is causal or not.	C204.1	A,E,AZ
3	What are called deterministic and random signals.	C204.1	U R
4	Evaluate the given integral. $\int_{-\infty}^{\infty} \delta(t)e^{-j\Omega t}dt$	C204.1	A,E,AZ
5	Find the fundamental period of$x(t) = cos\left(\frac{\pi}{3}t\right)$.	C204.1	A,E,AZ
6	Determine the even and odd components of the signal $x[n] = e^{jn}$.	C204.1	A,E,AZ
7	State Superposition theorem	C204.1	U R
8	Sketch the given signal neatly, $x(t) = r(t) - r(t-1)$.	C204.1	R, A
9	State Dirichlet conditions?	C204.2	U , R
10	List the conditions for half-wave symmetry.	C204.2	U , R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(a). Determine the fundamental time period for the given signals $x[n] = 2\cos\left(\frac{\pi}{4}n\right) + 2sin(\frac{\pi}{2}n + \frac{3\pi}{6})$ **(b).** Check whether the given signal is energy (or) power (or) neither energy nor power signals. $x(t) = (1 + e^{-5t})u(t)$ **(c).** Calculate Even and Odd components of the given signal. $x[n] = \{1, 1, 2, 3\}$.	C204.1	A,E,AZ
	Or		
12	Determine whether the following systems are Causal, Static, Linear, and Time-invariant, Stable or not **(a)** $y(n) = \cos[x(n)]$ **(b)** $y(t) = log_{10}(x(t))$	C204.1	A,E,AZ
13	Sketch the signal $x(t) = t^2$ *for all values of* $'t'$, and find the trigonometric Fourier series coefficients over an interval $(-1,1)$	C204.2	A,E,AZ
	Or		

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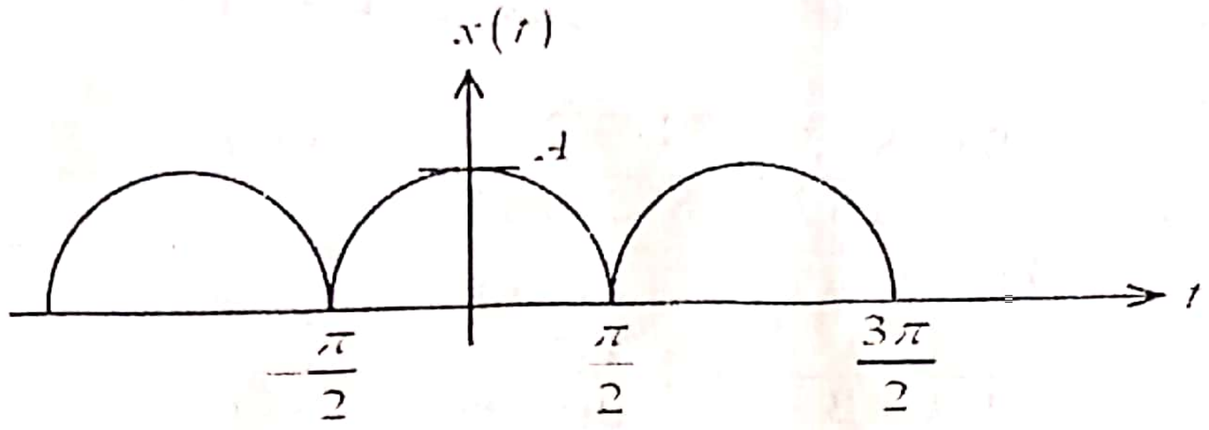
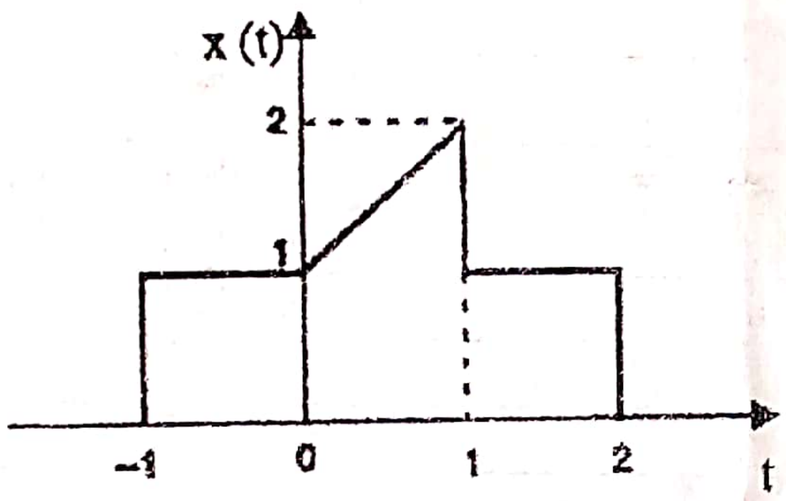
14	Find the Exponential fourier series Coefficients for the given signal $x(t)$ as shown in fig.  	C204.2	A.E.AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	For the signal $x(t)$ shown in fig. sketch the following signals  (i) $x(t-2)$. (ii) $x(-t+2)$ (iii) $x(2t+3)$ (iv) $x(\frac{3}{2}t)$	C204.1	U,A,AZ
	Or		
16	(a). Let $x[n] = (\frac{1}{4})^n$, where $-2 \leq n \leq 2$ be the given signal, carefully sketch the following signals (i) $x[2n]$. (ii) $x[3n-1]$. (iii) $x[2-2n]$.	C204.1	U,A,AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge:Dr.V.MOHAN Associate Prof/ ECE &Mr.G.SIVAKANNU AP/ECE

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Tiruchirapalli

Internal Assessment Test - I			Date/ Session	27.10.2023/FN	Marks	50
Course code	EC 3353	Course Title	Electronic Devices and Circuits			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section	III / A & B	Department	ECE	

Part – A

(Answer all the questions (10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List out the differences between avalanche break down and Zener break down.	C204.1	R
2	Write the diode current equation. Calculate the diode current in a Silicon PN diode when it is subjected to a voltage of 4 V. Assume room temperature is 27° C. The reverse saturation current of the diode is 40 μA.	C204.1	R
3	A step-down transformer having turns ratio 10: 1 and input 230 V, 50 Hz is used in a half-wave rectifier. The diode forward resistance is 15 ohms and resistance of secondary winding is 10 ohms. For a load resistance of 4 kilo ohms, calculate average and RMS values of load current.	C204.1	E
4	Draw the V-I characteristics of UJT and mark the different regions.	C204.1	E
5	Mention the difference in operation of D-type and E-type MOSFET.	C204.1	AZ
6	Compare BJT and MOSFET.	C204.1	R
7	Name the factors that affect the stability of Q point of a transistor amplifier.	C204.2	R
8	What is the need for biasing? Define operating point.	C204.2	R
9	List out the types of biasing methods of BJT.	C204.2	R
10	State the reason why common emitter amplifiers are more popular?	C204.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the structure, operation and V-I characteristics of PN junction diode with relevant diagrams. List out the applications of PN junction diode	C204.1	AZ
	Or		
12	a) Explain the operation of zener diode as voltage regulator [5] b) Explain zener break down mechanism. [2] c) A 24 V, 600 mW zener diode is used for providing a 24 V stabilized supply to a variable load (voltage shunt regulator). If the input voltage is 32 V, calculate value of series resistance required. [3]	C204.1	AZ, E
13	Define Diffusion capacitance. Derive the expression for diffusion capacitance.	C204.1	U, AZ
	Or		
14	Explain the operation of full wave rectifier with two diodes. Derive the expression for efficiency, average and RMS voltage and current, transformer utilization factor, ripple factor and peak factor.	C204.1	U, AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	a) Explain the operation of n-p-n transistor with its input and output characteristics in Common emitter configuration. [6] b) In npn transistor collector current is 20 mA. The base current is 40 μA. Find out α, β. If β increases by 10% find out new value of α. [4]	C204.2	R
	Or		
16	Explain the operation of Enhancement type MOSFET with relevant diagrams. Explain its VI characteristics.	C204.2	E

Bloom's Skills: *Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question*

Faculty In-Charge:*Dr.P.Shanmugapriya, Associate. Prof., / ECE & Dr.M.Baritha Begum, Associate. Prof., / ECE*

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Saranathan College of Engineering

Department of ECE.

M.E. (Communication Systems)

INTERNAL ASSESSMENT TEST – 1

Time Table

S.NO.	Date	SUBJECTS
1.	30.10.2023	RM4151 – Research Methodology and IPR
2.	31.10.2023	CU4152 – Radiating Systems
3.	01.11.2023	CU4151 – Advanced Wireless Communication
4.	02.11.2023	EL4151 – Modern Digital Communication Systems
5.	03.11.2023	DS4152 – Statistical Signal Processing
6.	04.11.2023	MA4156 – Linear Algebra Probability and Queueing Theory

26/10/23

HOD/ECE

20/10/23

Principal

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	30.10.2023/ FN	Marks	50
Course code	RM4151	Course Title	Research Methodology and IPR			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/ Section	I PG	Department	ME CS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Secondary data	C102.1	U
2	List out the Advantages of Exploratory Research	C102.1	U
3	What is the significance of research?	C102.1	U
4	What are the various types of research	C102.1	E
5	What is meant by Cohort Studies?	C1021	AZ
6	What are the rules of measurement	C102.2	A
7	How can one overcome instrument problems?	C102.2	AZ
8	What is the process of transcribing and cleaning data?	C102.2	U
9	What is meant by Histograms	C102.2	A
10	List out the Significance of Sampling	C102.2	E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Write a detailed explanation for the need of the research process.	C102.1	A
	Or		
12	Describe explain the Research Design	C102.1	AZ
13	In detail, explain how you can enhance observational studies.	C102.1	A
	Or		
14	Explain, in detail, how can obtain exploratory research.	C102.1	A

Part- C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Write about the questionnaires and instruments in research.	C102.2	R
	Or		
16	Elaborate on how to obtain data preparation in detail	C102.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

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Saranathan College of Engineering

Tiruchirappalli – 620012

Internal Assessment Test - I			Date/ Session	27.10.2023 /FN	Marks	50
Course code	CU4152	Course Title	Radiating Systems			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	I -ME	Semester/ Section	I	Department	ECE	

Part – A (20 Marks)

Part - A

Answer all the Questions **(10x1=10 Marks)**

Q. No.	Questios	CO	Skills
1	Define antenna.	C401.1	R
2	List out the types of antenna.	C401.1	R
3	Define field pattern and power pattern.	C401.1	A
4	Explain the various parts of radiation pattern lobes.	C401.1	R
5	Define radiation power density.	C401.1	E
6	Define linear array.	C401.2	U
7	Define far field and near field region.	C401.2	A
8	A 1.83m paraboloid reflector is to be used at 6 GHz. Calculate the beam width between the first nulls. Also calculate the gain of the antenna and express in decibels.	C401.2	A
9	Define antenna temperature.	C401.2	U
10	If the noise figure of the antenna at room temperature is 2dB, what is the effect noise temperature.	C401.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Write any eight fundamental parameters of antennas.	C401.1	U,E
	or		
12	Describe the current distribution on a thin wire antenna.	C401.1	U,R
13	Elaborate in detail about the endfire array.	C401.2	U,R
	or		
14	An antenna with effective temperature of 15 K is fed into a microwave amplifier with effective noise temperature of 20K. Calculate available noise power per unit bandwidth at the input for this particular antenna temperature. Calculate noise power for a noise bandwidth of 4MHz.	C401.2	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Find the effective length of a half wave dipole.	C401.1	U,R
	or		
16	Elaborate in detail about the broadside array.	C401.2	U,R

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	.10.2023	Marks	50
Course code	EL4151	Course Title	MODERN DIGITAL COMMUNICATION SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year/	I	Semester/ Section	I / PG	Department	M.E .CS	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is non coherent receiver . Write its advantage.	C104.1	U
2	Give the expressions for threshold and bit error probability of a matched filter	C104.1	R
3	What is the significance of optimum M- FSK receivers	C104.1	U
4	What is need for carrier synchronization of bit synchronization	C104.1	R
5	Draw the QPSK waveform for the input bit stream 01101000.	C104.1	U
6	Write down the DPSK bit stream corresponding to the binary bit stream 1011000110.	C104.1	E
7	Define the parameters of eye diagram in a typical communication channels	C104.2	U
8	Differentiate linear and non-linear equalizer.	C104.2	U
9	What is meant by ZFE? Enumerate its features.	C104.2	Az
10	Mathematically express the Nyquist criterion in frequency domain for pulse shaping to realize ISI free transmission	C104.2	R

Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(a)Explain in detail the characteristics of Rayleigh channel (b) Derive the error probability of DPSK modulation format	C104.1	R
	or		
12	(a)With neat block diagram explain DPSK and MPSK demodulators (b)Write short notes on characteristics of Rician channel	C104.1	U
13	(a)Explain the need for equalization. (b)Explain adaptive filter operation with neat block diagram	C104.2	E
	or		
14	Draw a neat schematic of Decision feedback equalizer and explain its principle in detail. Bring out its design details.	C104.2	R,A Z

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Design a coherent DPSK system to transmit data at a rate of 90kbps. If AWGN has N0=10^-6 and has to achieve a BER <10^-6, find the bandwidth of the system and the minimum signal amplitude at the receiver.	C104.1	Az
	Or		
16	(a)With neat sketches and expressions explain raised cosine spectrum to reduce ISI. (b)What is the advantage of M-ary QAM over M-ary PSK system. Obtain the constellation of QAM = 4 and draw signal space diagram.	C104.1	U

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Tiruchirapalli

Internal Assessment Test – I			Date/Session		Marks	50
Course code	MA4156	Course Title	Linear Algebra Probability and Queueing Theory			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	I	Semester/Section	I	Department	MECS_-ECE	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List any two basic differences between a transportation and assignment problem	C05	R
2	Obtain an initial basic feasible solution to the following transportation problem by using Least costMethod D_1 D_2 D_3 D_4 capacity O_1 1 2 3 4 6 O_2 4 3 2 0 8 O_3 0 2 2 1 10 Demand 4 6 8 6	C05	E
3	When degeneracy occur in transportation problems?.How it can be rectied?	C05	R
4	What are variants in LPP?	C05	R
5	Explain optimal solution in L.P.P	C05	R
6	A person requires 10, 12 and12 units of chemicals A, B and C respectively for his garden. A liquid product contains 5, 2 and 1 units of A, B and C respectively per jar.Adaily product contains 1,2 and4 units ofA, B and C per carton. If the liquid product sells for Rs. 30 per jar and the dry product sells for Rs. 20 per carton, formulate the linear programming problem in order to minimize the purchase cost and meet the requirement'	C05	R
7	Compare graphical method and Simplex method of solving LPP	C05	R
8	Define Vector Space	CO1	R
9	State any two properties of inner product.	CO1	R
10	How to find the eigen value by using QR algorithm	CO1	R

Part – B(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	**Solve the following LPP** Min $Z = 4x_1+3x_2$ Subject to the constraints $2x_1+x_2 \geq 10$, $-3x_1+2x_2 \leq 6$ $x_1+x_2 \geq 6$, $x_1, x_2 \geq 0$	C05	E
	(or)		
12	**Solve the following LPP** Maximize $Z = 4x_1+10x_2$ Subject to the constraints $2x_1+x_2 \leq 50$, $2x_1+5x_2 \leq 100$, $2x_1+3x_2 \leq 90$ $X1, X2 > 0$	C05	E

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13	Solve the following system of equations in the least square sense $x_1 + x_2 + 3x_3 = 1$ $x_1 + x_2 + 3x_3 = 2$	CO1	E
	Or		
14	Construct a QR decomposition for the matrix $\begin{pmatrix} 0 & 1 & 1 & 1 \\ 1 & 0 & 1 & 1 \\ 1 & 1 & 0 & 1 \\ 1 & 1 & 1 & 0 \end{pmatrix}$	CO1	E
	PART –C (1X10 Marks)		
15	A military equipment is to be transportation from origins x,y,z to the destinations A ,B ,C and D. The supply at the origins, the demand at the destinations and time of shipment is sown in the table.Work out the transportation plan so that the time required for shipment is the minimum Destinations A B C D SUPPLY Origin X 10 22 0 22 8 Y 15 20 12 8 13 Z 21 12 10 15 11 Demand 5 11 8 8	CO5	E
	(or)		
16	Consider the problem of assigning five jobs to five persons. The assignment costs are given as follows. Determine the optimum assignment schedule Job 1 2 3 4 5 Person A 8 4 2 6 1 B 0 9 5 5 4 C 3 8 9 2 6 D 4 3 1 0 3 E 9 5 8 9 5	CO5	E

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	1.11.2023 /FN	Marks	50
Course code	CU4151	Course Title	ADVANCED WIRELESS COMMUNICATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	I	Semester/Section	I	Department	MECS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	SSkills
1	Define Path-loss.	C105.1	*R*
2	What is meant by Doppler Spread?	C105.1	*U*
3	Define: Coherence Bandwidth.	C105.1	*U*
4	Distinguish between wired and wireless communication.	C105.1	*U*
5	Find far-field distance for antenna with maximum dimension of 1m & operating frequency of 900 MHz.	C105.1	*E*
6	List the 3 essential criteria which describe a particular channel as slow fading channel?	C105.1	*U*
7	State the difference between small scale and large scale fading?	C105.1	*E*
8	What are the factors influencing small scale fading?	C105.1	*R*
9	Give the types of diversity.	C105.3	*R*
10	What is Time diversity?	C105.3	*R*

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain about Two Ray model and find its path loss.	C105.1	*R*
	or		
12	Explain about free space path loss model.	C105.1	*U*
13	Explain about the Hata and Rayleigh and Rician models.	C105.1	*R*
	or		
14	Explain in detail about the 5G channel models and requirements.	C105.1	*R*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	If a transmitter produces 50W of power, express the transmit power in terms of (a) dBm and (b) dBW. If 50W is applied to a unity gain antenna with a 900 MHz carrier frequency, find the received power in dBm at a free space distance of 100m from the antenna. What is Pr(10km)? Assume unity gain for the receiver antenna.	C105.1	*E*
	or		
16	A mobile is located 5km away from a base station and uses vertical $\lambda/4$ monopole antenna with a gain of 2.55 dB to receive cellular radio signals. The E-field at 1km from the transmitter is measured to be V/m. The carrier frequency used for this system is 900MHz. (a) Find the length and the gain of the receiving antenna. (b) Find the received power at the mobile using the 2-ray ground reflection model assuming the height of the transmitting antenna is 50m and receiving antenna is 1.5m above ground.	C105.1	*AZ,E*

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	FN	Marks	50
Course code	DS4152	Course Title	Statistical Signal Processing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	I	Semester/ Section	I/ M.E (C.S)	Department	ECE-M.E(C.S)	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	SSkills
1	State the differences between ensemble average and time average.	C113.1	*R,U*
2	What are the conditions to be satisfied for a random process to be a Wide sense stationary random process.	C113.1	*A,Az*
3	List the properties of auto correlation of a random process.	C113.1	*A,Az*
4	What is called white noise?	C113.1	*U*
5	State Wiener-Khintchine thoerem.	C113.1	*E*
6	What are the properties of power spectrum of a random process.	C113.2	*U*
7	Illustrate the filter bank represntation of the periodogram.	C113.2	*AZ*
8	State the conditions in terms bias and variance of a consistent estimation of power spectrum.	C113.2	*A*
9	State the properties of the modified Periodogram.	C113.2	*R*
10	What is the principle of parametric spectrum estimation technique?	C113.2	*R*

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Ilustrate the filtering random processes by a LTI causal stable system. Also, the power spectrum of the output process is always non negative.	C113.1	*A,Az*
	Or		
12	Derive the yule-walker eqautions which describe the realtionship between the auto correlation coefficients and filter coefficients.	C113.1	*A,Az*
13	Explain in detail about Spectral factroiztion techniques associated with Innovations representations and whitening process.	C113.2	*Az*
	Or		
14	Explain the special types of random processes such as AR,MA and ARMA processes which are generated by a LTI system with rational transfer function.	C113.2	*Az*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about the fllowing non parametric spectrum estimation technique- Welch's method. Also, compare and contarst various non parametric power spectral techniques.	C113.2	*Az*
	Or		
16	Explain in detail about the Parametric Spectrum Estimation techniques with necessary equations.	C113.2	*Az*

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

INTERNAL ASSESSMENT TEST – 2

M.E. (Communication Systems)

TIME TABLE

24.11.23

S.NO.	DATE	SUBJECTS
1.	27.11.23	RM4151 – Research Methodology and IPR
2.	28.11.23	CU4152 – Radiating Systems
3.	30.11.23	CU4151 – Advanced Wireless Communication
4.	01.12.23	EL4151 – Modern Digital Communication Systems
5.	04.12.23	DS4152 – Statistical Signal Processing
6.	05.12.23	MA4156 – Linear Algebra Probability and Queueing Theory

for Hte.C

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 2 (II YEAR) DUTY LIST 2023-2024 ODD SEMESTER

25.11.2023

S.no	STAFF NAME	27-11-2023	28-11-2023	30-11-2023	01-12-2023	04-12-20323	05-12-2023	
	DAY ORDER	IV	V	II	III	V	I	
1	Dr. S.A Arunmozhi						@	1
2	Dr. S Rajeswari					@		1
3	Dr. V Mohan					@		1
4	Dr. P Shanmugapriya						@	1
5	Dr. M Baritha Begum			@				1
6	Mr. S Hariprasath	@						1
7	Dr. K Malaisamy		@					1
8	Ms. P Sivagamasundhari		@		@			2
9	Ms.J.Eindhumathy			@				1
10	Mr. M Mahendran	@						1
11	Mr. G Sivakannu				@		@	2
12	Ms. S Kiruthiga			@				1
13	Ms. M Anthuvan Lydia		@					1
14	Ms. B.Divya				@			1
15	Ms. Dr.N.Preethi Elizabeth					@		1
16	Mr.A.Kesavan	@						1
		3	3	3	3	3	3	18

HOD/ECE

SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12					
INTERNAL ASSESSMENT TEST 2 -I/II YEAR BE/B.TECH - ODD SEM 2023-24					
SEATING ARRANGEMENT					
ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
RV 301	ECE	A	II	252001-252019	17
RV 302	ECE	A	II	252020-252034	15
RV 303	ECE	A	II	252035-252050	16
RV 304	ECE	A/B	II	252051-252065	16
RV 305	ECE	B	II	252066-252081	16
RV 306	ECE	B	II	252082-252097	16
RV 307	ECE	B	II	252098-252112	15
RV 316	ECE	B	II	252113-252124	11
BD-205	MECS	A	I	262501-262505	5

HOD/ECE

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Saranathan College of Engineering II ECE -122

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	28.11.2023 / FN	Marks	50
Course code	EC 3353	Course Title	Electronic Devices and Circuits			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section	III / A & B	Department	ECE	

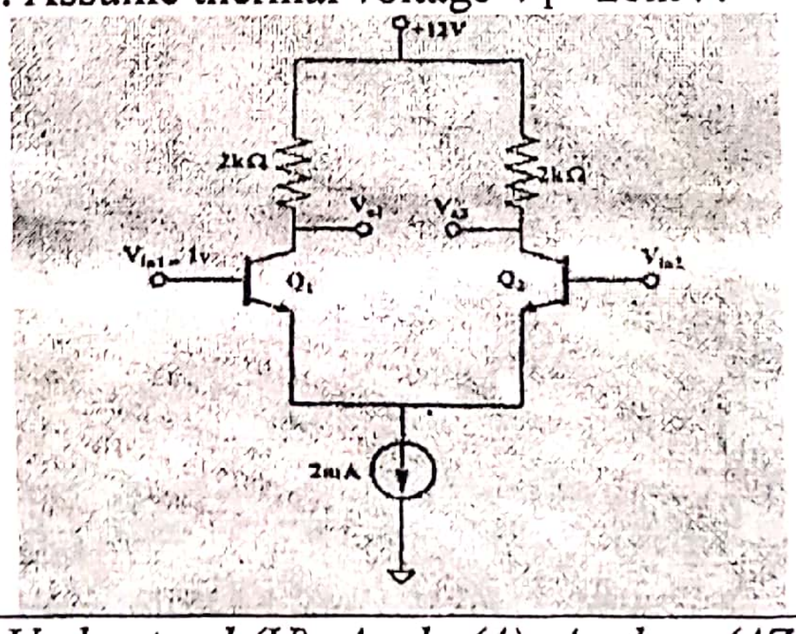
Part – A (Answer all the questions (10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw the ' re' equivalent circuit of CE amplifier in fixed bias.	C204.2	R
2	If the mid-band gain is 100 and half-power frequencies are f_L= 40Hz and f_H =16kHz. Calculate the amplifier gain at 20Hz and 20kHz frequencies.	C204.2	A,E
3	What is the effect of miller's capacitance on the frequency response of an amplifier?	C204.2	R
4	Draw the high frequency hybrid-π model of common emitter amplifier.	C204.2	R
5	Which type of connection is made for cascode amplifier?	C204.3	AZ
6	Express the equation for the overall lower and upper cut-off frequency of the multistage amplifier.	C204.3	R
7	Mention the purpose of Differential amplifier.	C204.3	R
8	What is meant by neutralization?	C204.3	R
9	In a differential amplifier if the common mode gain is 240 and differential mode gain is 125, calculate CMRR in dB	C204.3	A,E
10	A tuned circuit has resonant frequency of 1600 kHz and a bandwidth of 10 kHz. What is the value of its Q factor?	C204.3	E

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of the basic common Emitter amplifier circuit and derive the expressions for its small-signal voltage gain, current gain, input impedance and output impedance.	C204.2	AZ, E
	Or		
12	(i)Explain the fixed bias circuit for BJT. Discuss the merits and demerits of fixed bias circuit. (6) (ii)Explain the voltage divider biasing of MOSFET. (4)	C204.2	AZ, E
13	a) Explain the operation of BJT based cascode amplifier with neat diagram [5] b) Why Neutralisation is needed? and explain Hazeltine Neutralisation method.[5]	C204.3	U, AZ
	Or		
14	Explain the working of Differential amplifier using BJT and derive the expression for CMRR using h-parameter model.	C204.3	U, AZ

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the working principle of capacitance coupled single tuned amplifier and derive the expressions for its important parameters	C204.3	R, U
	Or		
16	For the differential amplifier shown below, assume β of both the transistors is very high. Find the value of Vin2 for which current flowing through 2K□ resistor of transistor q2 is 1.8mA. Assume thermal voltage V_T =26mV. 	C204.3	A,E, C

Bloom's Skills: *Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question* ***Faculty In-Charge:*** *Dr.P.Shanmugapriya, Associate. Prof., / ECE & Dr.M.Baritha Begum, Associate. Prof., / ECE*

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Saranathan College of Engineering

Tiruchirapalli

27/11/2023
II - BcE - 122

Internal Assessment Test - II			Date/Session	27.11.2023 / FN	Marks	50
Course code	MA3355	Course Title	RANDOM PROCESSES & LINEAR ALGEBRA			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	A continuous random variable X has the p.d.f given by $f(x)=\begin{cases}\lambda(1+x^2), 1\le x\le 5\\ 0. otherwise\end{cases}$ Find λ and $P(X<4)$.	CO1	U
2	If $M_x(t)=\frac{pe^t}{1-qe^t}$ is the MGF of X, find mean and variance of X.	CO1	AN
3	A continuous R.V. X has the p.d.f $f(x)=kx^3e^{-x}, x\ge 0$. Find the r^{th} moment about origin and mean.	CO1	E
4	If the probability that an applicant for a driver's license will pass the road test on any given trial is 0.8, what is the probability that he will finally pass the test (i) on the 4^{th} trial (ii) in fewer than 4 trials?	CO1	AN
5	Let X be a uniformly distributed R.V over [-5, 5]. Determine (i) $P(X\le 2)$ (ii) $P(\lvert X\rvert \ge 2)$.	CO1	U
6	State the classification of a random process.	CO4	R
7	What is Markov chain? When a Markov chain is called homogeneous?	CO4	R
8	A random process has the autocorrelation function $R_{XX}(\tau)=\frac{4\tau^2+6}{\tau^2+1}$, find the mean and variance of the process.	CO4	A
9	Consider a random process $X(t)=cos(wt+\theta)$ where ω is a real constant and θ is uniformly distributed in $(0,\pi/2)$. Show that X(t) is not wide sense stationary.	CO4	A
10	If the transition probability matrix of a Markov chain is $P=\begin{pmatrix}0 & 1\\ \frac{1}{2} & \frac{1}{2}\end{pmatrix}$. find the stationary distribution of the chain.	CO4	E

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Part – B

(Answer all the questions 3 x 10 = 30 marks)

<table>
<tr><th>Q. No.</th><th>Questions</th><th>CO</th><th>Skills</th></tr>
<tr><td>11.</td><td>(a). A company producing electric relays has three manufacturing plants producing 50%, 30% and 20 % respectively of its product. Suppose that the probabilities that a relay manufactured by these plants is defective are 0.102, 0.05 and 0.01 respectively. If a relay selected at random is found to be defective, what is the probability that it was manufactured by plant -2?

(b). The probability mass function of a discrete r.v X is given in the following table:
<table>
<tr><td>X</td><td>-2</td><td>-1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr>
<tr><td>$P(X = x)$</td><td>0.1</td><td>k</td><td>0.2</td><td>2k</td><td>0.3</td><td>k</td></tr>
</table>
Find (i) k (ii) $P(X < 1)$ (iii) $P(-1 < X \leq 2)$ (iv) E(X).</td><td>CO1</td><td>E</td></tr>
<tr><td colspan="4">(Or)</td></tr>
<tr><td>12.</td><td>(a). A student buys 1000 integrated circuits (ICs) from supplier A, 2000 ICs from supplier B, and 3000 ICs from supplier C. He tested the ICs and found that the conditional probability of an IC being defective depends on the supplier from whom it was bought. Specifically, given that an IC came from supplier A, the probability that it is defective is 0.05; given that an IC came from supplier B, that probability that it is defective is 0.10; and given that an IC came from supplier C, and the probability that it is defective is 0.10. If the ICs from the three suppliers are mixed together and one is selected at random, what is the probability that it is defective?

(b). State and prove the "forgetfulness" property of the Geometric distribution.</td><td>CO1</td><td>E</td></tr>
<tr><td>13.</td><td>(a). In a large consignment of electric bulbs, 10% are defective. A random sample of 20 is taken for inspection. Find the probability that (i) All are good bulbs (ii) At most there are 3 defectives (iii) Exactly there are 3 defectives.

(b). The length of time a person speaks over phone follows exponential distribution with mean 6 minutes. What is the probability that the person will talk for (1) more than 8 minutes and (2) between 4 and 8 minutes?</td><td>CO1</td><td>E</td></tr>
<tr><td colspan="4">(Or)</td></tr>
<tr><td>14.</td><td>(a). Obtain MGF of the binomial distribution and hence find the mean and variance.

(b).The weights in pounds of parcels arriving at a package delivery company's warehouse can be modelled by an $N(5; 16)$ normal random variable X.
(i).What is the probability that a randomly selected parcel weighs between 1 and 10 pounds? (ii).What is the probability that a randomly selected parcel weighs more than 9 pounds?</td><td>CO1</td><td>E</td></tr>
<tr><td>15.</td><td>Show that the random process $X(t) = Acos(w_0 t + \theta)$ is WSS, if A and w_0 are constants and θ is uniformly distributed random variable in $(0, 2\pi)$.</td><td>CO4</td><td>AN</td></tr>
<tr><td colspan="4">(Or)</td></tr>
<tr><td>16.</td><td>Consider the Markov chain $\{X_n, n = 0,1,2, \ldots\}$ having three states1, 2, 3 and one step TPM $P = \begin{pmatrix} 0 & 1 & 0 \\ \frac{1}{2} & 0 & \frac{1}{2} \\ 1 & 0 & 0 \end{pmatrix}$ and initial distribution is $P(X_0 = i) = \frac{1}{3}$. $i = 1,2,3$

Compute (1) $P(X_3 = 2, X_2 = 1, X_1 = 2 / X_0 = 1)$ (2) $P(X_3 = 2, X_2 = 1 / X_1 = 2, X_0 = 1)$ (3) $P(X_2 = 2 / X_0 = 2)$ (4) Invariant probabilities of the Markov chain.</td><td>CO4</td><td>AN</td></tr>
</table>

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Saranathan College of Engineering
Tiruchirapalli

III ECE - I22

Internal Assessment Test - II			Date/Session	30-11-2023 / FN	Marks	50
Course code	EC3351	Course Title	CONTROL SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/Section	03 / A & B	Department	ECE	

Part – A - (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Give the relation between generalized and static error coefficients	C205.2	R
2	What is the need of controllers and give its different types?	C205.2	AZ
3	An unity feedback system has G(S)=25(s+4) / (s(s+0.5)(s+2)). Determine the steady state error for unit ramp input	C205.2	E
4	Why derivative control is not used in control system?	C205.2	AZ
5	Write the transfer function of P controller and give its drawback.	C205.2	AZ
6	What is minimum phase system?	C205.3	R
7	Draw the polar plot of G(s)=1/(1+sT)	C205.3	E
8	What is gain and phase cross over frequency?	C205.3	R
9	The damping ratio and natural frequency of oscillation of a second order system is 0.5 and 8 rad/sec respectively. Calculate resonant peak and resonant frequency?	C205.3	A,E
10	Construct the bode plot for $G(S)=1/S^2$	C205.3	E

Part – B- (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	A unity feedback system has G(s)=40(s+2) / (s(s+1)(s+4)). Determine Type number, order of system, all error coefficients (K_p, K_v, K_a) and error for ramp input with magnitude 4	C205.2	E
	(OR)		
12	For a unity negative feedback system G(s)=K(s+2) / (s(s+5)(4s+1)), input applied is r(t)=1+3t. Find the minimum value of K so that the steady state error is less than 1.	C205.2	E
13	With a neat diagram, explain the function of PID Controllers in detail.	C205.2	U,R
	(OR)		
14	Enumerate the function of PI & PD Controllers with example.	C205.2	E

Part – C- (Answer all the questions 1 x 10 = 10marks)

15	The open loop transfer function of a unity feedback system is given by G(s)=50(1+0.1s) / (1+0.01s)(1+s). Using Bode plot, Determine value of K so that PM = 40°.	C205.3	A,E
	(OR)		
16	The open loop transfer function of a unity feedback system is given by $G(s)= 1/S(1+S)^2$. Sketch the polar plot and determine gain and phase margin.	C205.3	AZ,E

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SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI – 620012

II-ECE-122-

Internal Assessment Test - II			Date/ Session	03.11.2023/F N	Marks	50
Course code	EC3354	Course Title	SIGNALS AND SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023– 2024	
Year	II	Semester/ Section	III/A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	State Parseval's theorem of Fourier Transform.	C205.2	R,U
2	Obtain the CTFT of $u(t)$.	C205.2	E
3	If $X(j\Omega)$ is the FT of a signal $x(t)$. Then what is FT of the signal $x(5t-3)$ in terms of $X(j\Omega)$.	C205.2	U,A,E
4	State any two properties of ROC.	C205.2	R,U
5	Will there be any two different signals having same Laplace transform? Give example. How do you differentiate these two signals?	C205.2	R,U
6	Obtain $Y(s)$ from $y(t) = x_1(t) * x_2(t)$ where the signals are $x_1(t) = 2u(t)$ and $x_2(t) = tu(t)$.	C205.2	U,A, E
7	Write down the relationship between CT Fourier transform and Laplace transform for absolutely integral signal	C205.2	R,U
8	Give the expression for Convolution Integral.	C205.3	R
9	Determine the System function for an ideal differentiator.	C205.3	R
10	Determine the impulse response $h(t)$ of the following system $y(t) = x(t-t_o)$. Assume zero initial conditions.	C205.3	U,A,E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	a) Determine the Fourier transform of a double sided exponential signal $x(t) = e^{-3\|t\|}$ (b) Determine the FT of $x(t) = e^{(t-3)}u(t-3)$	C205.2	R,U,AZ,E
	Or		
12	a) Determine the FT of $x(t) = \cos(\Omega_0 t)u(t)$ b) Determine the Fourier transform. $x(t) = sgn(t)$	C205.2	U,AZ,E
13	Obtain the inverse Laplace transform of $X(s) = \frac{1}{s^2+3s+2}$ with ROC (a) $-2 < Re(s) < -1$ (b) $Re(s) > -1$ (c) $Re(s) < -2$	C205.2	U,AZ,E
	Or		

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14	a) Determine the Laplace transform of the following signal $x(t) = e^{-at} \sin \Omega_0 t\, u(t)$ **b)** Let x (t) and X(s) be Laplace transform pairs. Given that $x(t) = e^{-t}u(t)$. (i) Determine **X (2s) and** $X(4s)$	C205.2	U,AZ,E

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Using Laplace Transform, determine the following, $\frac{d^2y(t)}{dt^2} + 5\frac{dy(t)}{dt} + 6y(t) = \frac{dx(t)}{dt} + 5x(t)$ (a) System Function (b) Step response of the system (c) Frequency response of the system	C205.3	U,AZ,E
	Or		
16	Using Laplace transform, determine the response of the system described by the equation, $\frac{d^2y(t)}{dt^2} + 3\frac{dy(t)}{dt} + 2y(t) = \frac{dx(t)}{dt}$; *if* $y(0) = 2, \frac{dy(0)}{dt} = 1$ *for input* $x(t) = e^{-t}u(t)$	C205.3	U,AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering
Tiruchirapalli

Π-ECE-122

Internal Assessment II			Date/Session	05-12-2023 / FN	Marks	50
Course code	EC3352	Course Title	DIGITAL SYSTEM DESIGN			
Batch No.		Duration	1 1/2 hrs.	Academic Year	2023 - 2024	
Year	II	Semester/Section	03 / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Convert a decoder to Demultiplexers.	CO2	A
2	Write the truth table for 1-bit comparator.	CO2	R, U
3	What is meant by multiplexer? Draw the truth table for 2x1 multiplexer.	CO2	R, U
4	Draw the function table of a NOR gate based SR Latch.	CO3	R, U
5	Differentiate between Latch and Flip Flop.	CO3	Az, A
6	How the D Flip Flop is converted into a T-Flip Flop?	CO3	Az, A
7	Draw the excitation table of D Flip Flop.	CO3	R, U
8	What is a shift Register?	CO3	R
9	Mention the application of Flip Flops.	CO3	R
10	Draw the logic diagram of a 3-bit Right Shift Register.	CO3	A

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Draw the logic diagram of BCD Adder and explain its operation.	CO2	A, Az
	(OR)		
12	With a neat diagram, explain in detail about the working of a 4-bit Carry Look Ahead Adder. Mention its advantage over conventional Adder.	CO2	A, Az
13	Explain D, JK and T Flip Flops with their logic circuits, characteristic tables and characteristic equations	CO3	R, U
	(OR)		
14	Draw the Universal Shift Register and explain its operation.	CO3	Az, A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	a) Explain the operation of a 2-to-4 decoder with neat truth table and circuit Diagram. b) Implement a full adder with one 3-to-8 decoder and two OR gates.	CO2	Az, A
	(OR)		
16	a) Implement the following Boolean function using an 8:1 multiplexer considering D as the input and A, B, C as the selection lines. $F(A, B, C, D) = \Sigma m(1,2,5,7,8,10,11,13,15)$ (6) b) What is a Demultiplexer? Draw the truth table for a 1x4 Demultiplexer. (4)	CO2	Az, A

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Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date / Session	01.12.2023 / FN	Marks	50
Course code	CS3353	Course Title	C Programming and Data Structures			
Batch No.		Duration	09.15 am to 10.45 am	Academic Year	2023-2024	
Year	Second Year	Semester/Section	III/A/B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q.No.	Questions	CO	Skills
1	When Null pointer is used?	C202.2	AZ
i2	List the File operations in C paradigm.	C202.2	R
3	How does a Preprocessor work?	C202.2	A
4	List the advantages of Linked List over arrays.	C202.3	E
5	Define an Abstract Data Type.	C202.3	U
6	Write the routine for creation of Circular Doubly Linked List.	C202.3	C
7	Give the Prefix for the below Infix expression. p*q+(r-s/t)	C202.3	A
8	List the application of Stack ADT.	C202.3	R
9	Write the routines for find operation in linked list.	C202.3	U
10	What is sentinel node in linked list?	C202.3	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q.No.	Questions	CO	Skills
11	i) Write a C program for accessing Structure variables through pointer. (5) ii) Write a short note on 1) fseek() 2) ftell() 3) rewind() 4) feof() 5) fscanf(). (5)	C202.2	C U
	Or		

12	i) Explain Preprocessor directive in detail. Write a program to explain all the types of directives in C. (7)
	
	ii) What is the output of the following code fragment? (3)
	int x=456, *p1, **p2;
	p1=&x;
	p2=&p1;
	printf("Value of x is: %d\n", x);
	printf("Value of *p1 is: %d\n", *p1);
	printf("Value of *p2 is: %d\n", *p2);
		C202.2	U
			C, E

13	i) What are the ways to insert nodes in a Linked List? Write the routine for operations of singly linked list(10)	C202.3	R AZ
	Or		
14	i) What is Doubly Linked List? Write the routines for operations of Doubly linked list.(10)	C202.3	R U

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Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.		Questions	CO	Skills
15	i)	In stack, evaluate the postfix expression 5 ,6 ,2 ,+ ,*, 12 ,4, / ,- (5)	C202.3	A
	ii)	Write the routines for array implementation of stack operation(5)		
		Or		
16	i)	Convert infix to postfix *((A + B) – C * (D / E)) + F (5)*	C202.3	A
	ii)	Write the routines for insertion operation of Doubly circular linked list.(5)		

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SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI – 620012

Internal Assessment Test - II			Date/ Session	04.12.2023/FN	Marks	50
Course code	DS4152	Course Title	Statistical Signal Processing			
Batch No.		Duration	90 mins	Academic Year	2023– 2024	
Year	I	Semester/ Section	I	Department	M.E Comm System	

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List the advantages of Prony's method of signal modeling.	C205.4	R,U
2	Draw the block diagram to illustrate the system interpretation of Prony's method for signal modelling.	C205.4	R,U
3	List the applications of Levinson-Durbin Recursion.	C205.4	U,A
4	Draw a two port network, a single stage of an FIR lattice filter.	C205.4	R,U
5	List the problems which may be cast into wiener filtering framework.	C205.4	R,U
6	State the matrix form of Wiener – Hopf equations.	C205.4	R,U
7	Write the summary of the Newton's steepest descent method	C205.5	R,U
8	What is the advantage of Normalized LMS algorithm for adaptive filters?	C205.5	R,U
9	State the coefficient update equation of the variant of LMS algorithm which is used in the CCITT standard for 32kbps ADPCM modem.	C205.5	R.U
10	State the principle of recursive Least squares algorithm.	C205.5	U,A

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	With necessary wiener Hopf equations, explain in detail about the design of FIR Wiener filters for filtering and Linear Prediction.	C113.4	*A,Az*
	Or		
12	Explain in detail the design and applications of IIR causal Wiener filters	C113.4	*A,Az*
13	Explain in detail about exponentially weighted RLS and sliding window RLS algorithms.	C113.5	*A,Az*
	Or		
14	a) Starting from the basic principles, derive the LMS weight update equation and explain the LMS adaptive algorithm in detail. b) With necessary equations, explain in detail about the design of FIR, non-recursive adaptive filters and steepest gradient descent algorithm used for the adaptation.	C113.5	*A,Az*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Determine the third order all-pole model for a signal having auto correlation values $r_x(0)=1, r_x(1)=0.5, r_x(2)=0.5, r_x(3)=0.25$. Apply Levinson – Durbin recursion to solve the auto correlation values.	C113.4	*A,AZ, E*
	Or		
16	Let d(n) be an AR(1) process with $r_d(k)=\alpha^{\lvert k\rvert}, with\ 0<\alpha<1$. The d(n) is observed in the presence of uncorrelated white noise whose $\sigma_v^2=1$. The signal model filter coefficients are w(00= 0.4048, w(1) = 0.2381. The power spectral density of the desired signal is given by $P_d(e^{jw})=\frac{1-\alpha^2}{(1+\alpha^2)-\cos w}$ with $\alpha=0.8$. a) Prove that SNR decreases with increasing w. b) Also, prove that the wiener filter increases the SNR	C113.4	*A,AZ, E*

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date/ Session	27.11.2023/ FN	Marks	50
Course code	RM4151	Course Title	Research Methodology and IPR			
Batch No.		Duration	90 mins		Academic Year	2023 - 2024
Year	I	Semester/ Section	I		Department	ME CS

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Multivariate Analysis	C103.3	U
2	List out the Characteristics of Analysis of Data	C103.3	U
3	What is the Hypotheses Testing?	C103.3	U
4	What are the various Types of Data Analysis?	C103.3	E
5	What is meant by Chi-square Test?	C103.3	AZ
6	What is the concept of IPR	C103.4	A
7	Write the feature of the Agreement?	C103.4	AZ
8	What is the process of IPR Development?	C103.4	U
9	What is meant by WIPO?	C103.4	A
10	List out the Significance of Right of Priority	C103.4	E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Write a detailed explanation for the Hypotheses Testing.	C103.3	A
	Or		
12	Describe explain the Measures of Association	C103.3	AZ
13	In detail, explain Presenting Insights and Findings using Written Reports and Oral Presentation	C103.3	A
	Or		
14	Explain, in detail, Classification of Multivariate Techniques.	C103.3	A

Part- C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Write about the Types and Features of IPR Agreement	C103.4	R
	Or		
16	Elaborate on how to obtain Trademarks in detail	C103.4	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

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Saranathan College of Engineering

Tiruchirappalli – 620012

Internal Assessment Test - II			Date/ Session	28.11.2023/ FN	Marks	50
Course code	CU4152	Course Title	Radiating Systems			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	I -ME	Semester/ Section	I	Department	ECE	

Part – A (20 Marks)

Part - A

Answer allthe Questions **(10x1=10Marks)**

Q. No.	Questios	CO	Skills
1	Define phased array antenna.	C401.2	R
2	List out the Advantages of Smart Antennas.	C401.2	R
3	Define switched beam and adaptive arrays.	C401.1	A
4	Explain the various type of excitation technique.	C401.1	R
5	List out the Advantages of rectangular patch	C401.1	E
6	Define Field equivalence principle.	C401.3	U
7	What is aperture blockage?	C401.3	A
8	Define Reflector antenna,	C401.3	A
9	Define Babinets principle.	C401.3	U
10	List out the horn antenna advantages and applications.	C401.3	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the Binomial and Chebyshev distributions.	C401.2	U,E
	or		
12	Describe the phased array antenna and its applications.	C401.2	U,R
13	Elaborate in detail about Patch, Rectangular patch, Circular patch excitation techniques.	C401.3	U,R
	or		
14	Explain in detail about slot antenna	C401.3	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Describe the switched beam and adaptive arrays.	C401.2	U,R
	or		
16	Elaborate in detail about the Smart antennas.	C401.3	U,R

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	01.12.2023	Marks	50
Course code	EL4151	Course Title	MODERN DIGITAL COMMUNICATION SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year/	I	Semester/ Section	I / PG	Department	M.E .CS	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Differentiate Linear and Non- Linear Equalizers.	C104.2	Az
2	State the Nyquist criterion for Zero Intersymbol interference.	C104.2	R
3	What is an eye pattern? How it is used to know the information about a channel.	C104.2	U
4	Give the systematic form of block codes	C104.3	R
5	What are cyclic codes? why are they called sub class of block codes	C104.3	U
6	Explain what are BCH codes	C104.3	E
7	State Shannon's channel coding theorem for channel capacity	C104.3	U
8	Define Golay codes	C104.3	U
9	Differentiate single and multi-carrier modulation	C104.5	Az
10	State the principle of OFDM.	C104.5	R

Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	With neat block diagram explain matched filter .	C104.3	R
	or		
12	Describe in detail coded BPSK demodulator with diagram	C104.3	U
13	Explain Orthogonal frequency division multiplexing in detail with neat diagram	C104.5	E
	or		
14	Explain FFT algorithmic implementation of OFDM system	C104.5	C

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	With a suitable example explain the Hamming and cyclic codes.	C104.3	Az
	Or		
16	Describe in detail coded DPSK demodulator with diagram	C104.3	U

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Tiruchirapalli

Internal Assessment Test – II			Date/Session		Marks	50
Course code	MA4156	Course Title	LINEAR ALGEBRA, PROBABILITY AND QUEUEING THEORY			
Batch No.		Duration	90 mins	Academic Year		2023 - 2024
Year/	I	Semester/Section	I	Department		ECE-MECS

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	If X is a random variable whose density function is given by $f(x) = A e^{-x}$ $x>0$ Find A & Mean and standard deviation	C02	R
2	Define one dimensional random variable and explain types of random variable.	C02	R
3	Define Marginal distributions	C02	R
4	Define Probability and conditional probability.	C02	R
5	Define Baye's theorem.	C02	E
6	The regression equations are $3x+2y=26$ and $6x+y=31$. Find the correlation coefficient between them	C02	R
7	If the random variables X and Y are independent, then Prove that $COV(X,Y) = 0$	C02	E
8	The joint probability density function of a bivariate random variable (X,Y) is $f(x,y) = k(x+y)$, $0<x<2$, $0<y<2$, Find k.	C02	E
9	What is Jordan canonical form?	CO1	R
10	Find the generalized eigenvector of rank 3 corresponding to the eigen value $\lambda=7$ for the matrix $\begin{pmatrix} 7 & 1 & 2 \\ 0 & 7 & 1 \\ 0 & 0 & 7 \end{pmatrix}$	CO1	E

Part – B(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Determine the number of generalized eigen vectors of each rank corresponding to $\lambda=4$ that will appear in a canonical basis for $A = \begin{bmatrix} 4 & 2 & 1 & 0 & 0 & 0 \\ 0 & 4 & -1 & 0 & 0 & 0 \\ 0 & 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 0 & 4 & 2 & 0 \\ 0 & 0 & 0 & 0 & 4 & 0 \\ 0 & 0 & 0 & 0 & 0 & 7 \end{bmatrix}$	C01	E
	Or		
12	Find the Jordan canonical form of the matrix $A = \begin{bmatrix} -1 & -1 & 0 \\ 0 & -1 & -2 \\ 0 & 0 & -1 \end{bmatrix}$	C01	E
13	A random variable X has the following probability distribution X: 0 1 2 3 4 5 6 7 P(x): 0 K 2k 2k 3k k^2 $2k^2$ $7k^2+k$ Find (1) the value of k (2) $P(1.5 < x < 4.5 / x > 2)$ and (3) The smallest value of n for which $P(X \le n) > \frac{1}{2}$ (4)Find the distribution function of X (5) $P(x<3)$ $P(1<x<4)$	C02	E

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14	If the joint pdf of a two dimensional RV (X,Y) is given by f(x,y)= K(6-x-y), o<x<1, 2<y<4 , Find (i) the value of k (ii) P(X<1,Y<3) (iii) P(X+Y<3) (iv) Conditional distribution of x given y	CO2	E
	PART –C (1X10)		
15	If the joint pdf of the random variable (X,Y) is $f(x,y) = \begin{cases} Kxy, & 0 < x < 1, 0 < y < x \\ 0 & otherwise \end{cases}$ Find (i)the value of K (ii) Marginal density function of X and Y (iii) $P\left(Y < \frac{1}{8} \middle| X < \frac{1}{2}\right)$	CO2	E
	Or		
16	In bolt factory, machines A,B and C manufacture respectively 25%, 35% and 40% of total output. Also out of these output of A,B,C 5,4,2 percent respectively are defective. A bolt is drawn at random from the total output and it is found to be defective. What is the probability that it was manufactured by the machine B ?	CO2	E

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	29.11.23/ FN	Marks	50
Course code	CU4151	Course Title	ADVANCED WIRELESS COMMUNICATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	I	Semester/Section	I	Department	MECS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	SSkills
1	Define: EGC.	C105.3	*R*
2	What is meant by Diversity concept?	C105.3	*U*
3	Define: Shannon Capacity theorem.	C105.3	*U*
4	Distinguish between Maximal Ratio Combining and Equal Gain Combining methods.	C105.3	*U*
5	Define: Channel State Information	C105.3	*R*
6	Distinguish between selection diversity and combining diversity.	C105.3	*U*
7	Define feedback diversity or scanning diversity.	C105.3	*R*
8	How the link performance can be improved?	C105.3	*R*
9	Define: MIMO	C105.2	*R*
10	Give the difference between MISO & SIMO.	C105.2	*R*

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the different types of diversity combining methods used in multipath propagation model.	C105.3	*R*
	or		
12	Explain different types of diversity techniques used in wireless communication with suitable diagram.	C105.3	*U*
13	Derive the Capacity equation for Flat fading channels.	C105.2	*R*
	or		
14	Derive the Capacity equation for Frequency selective fading channels.	C105.2	*R*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	a) Assume four branch diversity is used, where each branch receives an independent Rayleigh fading signal. If the average SNR is 20 dB, determine the probability that the SNR will drop below 10 dB. Compare this with the case of a single receiver without diversity. b) Explain about the Time Diversity.	C105.3	*E,R*
	or		
16	Explain about the Transmitter Diversity for Channel unknown and Known at Transmitter.	C105.3	*AZ*

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21.12.2023

Circular

Internal Assessment **Test – 3** for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 26.12.2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – **FIRST HOUR**

11.50 a.m. – 12.45 p.m. – **SECOND HOUR**

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

THIRD IA TEST FOR II Year _December 2023

S.No.	1	2	3	4	5	6
Date	26-Dec-23	27-Dec-23	28-Dec-23	30-Dec-23	02-Jan-24	03-Jan-24
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	MA3355 -Random Processes and Linear Algebra	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	EI3354 - Linear Integrated Circuits and Applications	CS3353 - C Programming and Data Structures	EI3351 - Analog Electronics
Mech.,	ME3393 - Manufacturing Processes	ME3351 - Engineering Mechanics	MA3351 - Transforms and Partial Differential Equations	ME3391 - Engineering Thermodynamics	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery
CIVIL	CE3303 - Water Supply and Wastewater Engineering	CE3302 - Construction Materials and Technology	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 3 (II YEAR) DUTY LIST 2023-2024 ODD SEMESTER

26.12.2023

S.no	STAFF NAME	12/26/2023	12/27/2023	12/28/2023	12/30/2023	1/2/2024	1/3/2024	
	DAY ORDER	I	II	III	V	I	II	
1	Dr. S.A Arunmozhi					@		1
2	Dr. S Rajeswari		@		@			2
3	Dr. V Mohan			@				1
4	Dr. P Shanmugapriya				@	@		2
5	Dr. M Baritha Begum	@						1
6	Mr. S Hariprasath			@				1
7	Dr. K Malaisamy			@				1
8	Ms. P Sivagamasundhari	@						1
9	Ms.J.Eindhumathy		@			@		2
10	Mr. M Mahendran							0
11	Mr. G Sivakannu				@			1
12	Ms. S Kiruthiga						@	1
13	Ms. M Anthuvan Lydia						@	1
14	Ms. B.Divya	@						1
15	Ms. Dr.N.Preethi Elizabeth						@	1
16	Mr.A.Kesavan		@					1
		3	3	3	3	3	3	18

HOD/ECE

SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12					
KS 113	ECE	A/B	II	252055-252062,252123, 252063-252074	21
KS 114	ECE	B	II	252075-252095	21
KS 213	ECE	B	II	252096-252113	18
KS 214	ECE	B	II	252114-252124	10
KS 109	ECE	A	II	252001-252017	16
KS 110	ECE	A	II	252019-252038	20
KS 111	ECE	A	II	252039-252054	16

HOD/ECE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

INTERNAL ASSESSMENT TEST – 3

M.E. (Communication Systems)

TIME TABLE

21.12.23

S.NO.	DATE	SUBJECTS
1.	26.12.23	RM4151 – Research Methodology and IPR
2.	27.12.23	CU4152 – Radiating Systems
3.	28.12.23	CU4151 – Advanced Wireless Communication
4.	02.01.24	EL4151 – Modern Digital Communication Systems
5.	03.01.24	DS4152 – Statistical Signal Processing
6.	04.01.24	MA4156 – Linear Algebra Probability and Queueing Theory

22/12/23

HOD/ECE

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date/ Session	21.12.2023/ FN	Marks	50
Course code	RM4151	Course Title	Research Methodology and IPR			
Batch No.		Duration	90 mins		Academic Year	2023 - 2024
Year	I	Semester/ Section	I		Department	ME

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Patent	C103.5	U
2	List out the Objectives and Benefits of Patent	C103.5	U
3	What is the E-Filing?	C103.5	U
4	What are the various Types of Assignment of Patents?	C103.5	E
5	What is meant by Licensing of Related Patents?	C103.5	AZ
6	What is the concept of Patent Agents	C103.5	A
7	Write the feature of the WIPO and WTO?	C103.4	AZ
8	What is the process of IPR Development?	C103.4	U
9	What is meant by Regression Analysis .?	C103.3	A
10	List out the Significance of Multivariate Analysis	C103.3	E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Write a detailed explanation for the Presenting Insights and Findings using Written Reports and Oral Presentation	C103.3	A
	Or		
12	Describe explain the Data Analysis	C103.3	AZ
13	In detail, Common Rules of IPR Practices	C103.4	A
	Or		
14	Explain, in detail, Trademarks	C103.4	A

Part- C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Write about the Types and Features of Assignment of Patents	C103.5	R
	Or		
16	Elaborate on how to obtain Patent Agents in detail	C103.5	R

***Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned** against each question.*

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Saranathan College of Engineering II-ECE-122

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	26.12.2023 / FN	Marks	50
Course code	EC 3353	Course Title	Electronic Devices and Circuits			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section	III / A & B	Department	ECE	

Part – A (Answer all the questions (10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	The overall gain of a multistage amplifier is 140. When negative voltage feedback is applied, the gain is reduced to 17.5 find the fraction of the output that is feedback to the input.	C204.4	R
2	In Colpitts Oscillator, the desired frequency is 500 KHz. Find the value of L. Assume C= 1000pF.	C204.4	A,E
3	A Wien bridge oscillator is used for operation at 10KHz. If the value of the resistor R is 100Kohms, what is the value of C required?	C204.4	R
4	Define feedback and feedback factor	C204.4	R
5	What is the condition required for satisfactory operation of a negative feedback amplifier?	C204.4	AZ
6	What is frequency of Oscillations?	C204.4	R
7	Compare voltage and power amplifiers	C204.5	R
8	Write the disadvantages of class A power amplifier?	C204.5	R
9	What is DC-DC convertor?	C204.5	A,E
10	List the applications of power amplifier	C204.5	E

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of the basic voltage shunt feedback amplifier circuit and derive the expressions for its small-signal voltage gain, current gain, input impedance and output impedance.	C204.4	AZ, E
	Or		
12	Explain the RC phase shift oscillator. Discuss the merits and demerits of RC Oscillator.	C204.4	AZ, E
13	Explain the operation of BJT based Hartley oscillator with neat diagram	C204.4	U, AZ
	Or		
14	Explain the working of current shunt feedback amplifier using BJT and derive the expression for voltage gain.	C204.4	U, AZ

Part – C (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the working principle of class B power amplifier and derive the expressions for its important parameters	C204.5	R, U
	Or		
16	Explain the working principle of class AB power amplifier using MOSFET and derive the expressions for its important parameters	C204.5	A,E, C

Bloom's Skills: *Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question*

Faculty In-Charge: *Dr.P.Shanmugapriya, Associate. Prof., / ECE & Dr.M.Baritha Begum, Associate. Prof., / ECE*

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Saranathan College of Engineering

Tiruchirapalli

II - ECE - 123

Internal Assessment Test - III			Date/Session	28.12.2023/ FN	Marks	50
Course code	EC3351	Course Title	CONTROL SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/Section	03 / A & B	Department	ECE	

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What will be the Stability of the system when the roots of characteristic equation are on imaginary axis?	C205.4	AZ
2	Write the necessary and sufficient condition for the stability according to Routh Stability criterion.	C205.4	AZ
3	What is meant by relative stability?	C205.4	U
4	The addition of a pole will make a system more stable. Justify your answer.	C205.4	U
5	How will you find centroid and angle of Asymptotes?	C205.4	R
6	State the Kalman's test for both Controllability and Observability	C205.6	E
7	A system is characterized by differential equation, $d^2y/dt^2 + 10\ dy/dt + 7y - u = 0$. Determine the transfer function.	C205.6	E
8	What are the basic elements to construct state diagram?	C205.6	R
9	What are the advantages of state space representation?	C205.6	U
10	Write the state model of nth order system?	C205.6	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	With the help of Routh's stability criterion, determine the stability of the system represented by the characteristic equation: $S^4 + 8S^3 + 18S^2 + 16s + 5 = 0$.	C205.4	E
	(OR)		
12	With the help of Routh's stability criterion, determine the stability of the system represented by the characteristic equation and comment on the location of poles. $S^6 + 2S^5 + 8S^4 + 12S^3 + 20S^2 + 16S + 16 = 0$.	C205.4	E
13	Sketch the root locus of the system whose open loop transfer function is G(s) H(s) = $K\,(S+9)/\,S(S^2+4S+11)$	C205.4	U,R
	(OR)		
14	Sketch the root locus of the system whose open loop transfer function is G(s) H(s) = $K/\,S\,(S^2+4S+13)$	C205.4	E

Part – C (Answer all the questions 1 x 10 = 10marks)

15	The state space representation of a system is given below $\begin{bmatrix} \dot{x}_1 \\ \dot{x}_2 \\ \dot{x}_3 \end{bmatrix} = \begin{bmatrix} 0 & 0 & 1 \\ 2 & -3 & 0 \\ 0 & 2 & -3 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} + \begin{bmatrix} 0 \\ 2 \\ 0 \end{bmatrix} u$ and $y = \begin{bmatrix} 0 & 1 & 0 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix}$ Check for controllability and observability.	C205.6	A,E
	(OR)		
16	Obtain a state model for the system whose Transfer function is given by Y(S)/U(S) = $(7S^2+12S+8)\ /\ (S^3+6S^2+11S+9)$. Give block diagram representation of state model.	C205.6	AZ,E

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II-ECE-123

Internal Assessment Test - III			Date/Session	28.12.2023 / FN	Marks 50
Course code	MA3355	Course Title	RANDOM PROCESSES & LINEAR ALGEBRA		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year	II	Semester/ Section	III / A & B	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO's	Skills
1	Check whether the Markov chain with the tpm $P = \begin{pmatrix} 0 & 1 & 0 \\ \frac{1}{2} & 0 & \frac{1}{2} \\ 0 & 1 & 0 \end{pmatrix}$ is irreducible or not?	CO4	U
2	State the postulates of a Poisson process.	CO4	R
3	Is the Poisson process stationary? Justify.	CO4	AN
4	Consider the vectors $u = (1,2,-1)$ and $v = (6,4,2)$ in R^3. Show that $w = (9,2,7)$ is a linear combination of u and v.	CO5	U
5	For which value of k will the vector $v = (1,-2,k)$ in R^3 be a linear combination of the vectors $u = (3,0,-2)$ and $w = (2,-1,-5)$.	CO5	A
6	Determine whether the vectors $v_1 = (1,-2,3), v_2 = (5,6,-1), v_3 = (3,2,1)$ are linearly independent or linearly dependent in R^3.	CO5	A
7	Is a set of all vectors of the form $(a,1,1)$, where a is real, a subspace of R^3? Justify.	CO5	R
8	Define Kernel of T.	CO6	R
9	Is there a linear transformation $T: R^3 \to R^2$ such that $T(1, 0, 3) = (1,1)$, $T(-2, 0, -6) = (2,1)$?	CO6	U
10	Suppose that $T: R^2 \to R^2$ is linear and $T(1,0) = (1,4)$ and $T(1,1) = (2,5)$. What is $T(2,3)$?	CO6	E

F/B

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Part – B

(Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO	Skills
11.	(i). Let R^+ be the set of all positive real numbers. Addition and scalar multiplication is defined as follows: $u + v = uv \ \forall \ u, v \in R^+; \alpha u = u^\alpha, \forall \ u \in R^+ \ and \ \alpha \in R.$ Prove that R^+ is a vector space over R. (ii). Test whether set of vectors $\{(1,-3,-2),(-3,1,3),(-2,-10,2)\}$ in R^3 form a basis of R^3 over R.	CO5	AN
	(Or)		
12.	Determine whether the set of all pairs of real numbers of the form $(1, x)$ with the operations $(1,y)+(1,y')=(1,y+y')$ and $k(1,y)=(1,ky)$ is a vector space or not. If not, identify the vector space axioms that fail to hold.	CO5	AN
13.	(i). Let $V = R^3$ and $S_1 = \{(1,0,0),(2,2,0),(5,7,2)\}$. Show that S_1 is a minimal generating set. (ii). Verify whether the set $S = \left\{\begin{pmatrix} 1 & -3 & 2 \\ -4 & 0 & 5 \end{pmatrix}, \begin{pmatrix} -3 & 7 & 4 \\ 6 & -2 & -7 \end{pmatrix}, \begin{pmatrix} -2 & 3 & 11 \\ -1 & -3 & 2 \end{pmatrix}\right\}$ in $M_{2x3}(R)$ is linearly dependent or not.	CO5	A
	(Or)		
14.	Find a basis and the dimension of the solution space of the homogeneous system $x_1 + 3x_2 - 2x_3 + 2x_4 = 0; \ 2x_1 + 6x_2 - 5x_3 - 2x_4 + 4x_5 - 3x_6 = 0;$ $5x_3 + 10x_4 + 15x_6 = 0; \ 2x_1 + 6x_2 + 8x_4 + 4x_5 + 18x_6 = 0.$	CO5	A
15.	Let $T: R^2 \to R^3$ be defined by $T(x,y) = (x-y,\ x,\ 2x+y)$. Let $B = \{e_1, e_2\}$, where $e_1 = (1,0)$, $e_2 = (0,1)$ and $B' = \{(1,1,0),(0,1,1),(2,2,3)\}$ be the basis for R^2 and R^3. Find the matrix of T with respect to these bases.	CO6	E
	(Or)		
16.	(i). Let $T: R^2 \to R^2$ be defined by $T(a,b) = (2a-3b,\ a+4b)$. Prove that T is linear. (ii). Find the linear transformation $T: R^3 \to R^3$ determined by the matrix $\begin{pmatrix} 1 & 2 & 1 \\ 0 & 1 & 1 \\ -1 & 3 & 4 \end{pmatrix}$ with respect to the standard basis. What is $T(-2,2,3)$?.	CO6	E

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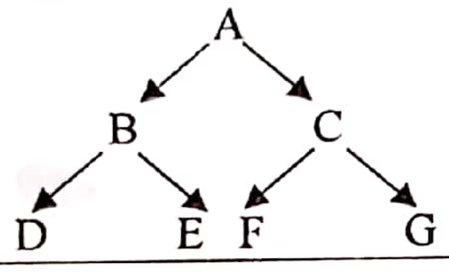
II years
30.12.23 ECE-123

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III		Date / Session	30.12.23 /FN	Marks	50
Course code	CS3353	Course Title	C Programming and Data Structures		
Batch No.		Duration	09.15 am to 10.45 am	Academic Year	2023-2024
Year	Second Year	Semester/Section	III/A/B	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No.	Questions	CO	Skills
1	Define Degree of a node.	C202.4	R
2	What do you mean by Level of the tree?	C202.4	U
3	State the properties of Binary tree.	C202.4	R
4	Define Binary Search Tree. Mention its properties.	C202.4	R
5	Traverse the given tree using In order, Pre order, and Post order traversals. 	C202.4	A
6	Define Hashing function.	C202.5	U
7	What is called Double hashing?	C202.5	R
8	How Insertion sort is done with arrays?	C202.6	U
9	What are the steps in Quick sort?	C202.6	R
10	Differentiate Internal and External Sorting.	C202.6	E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q.No.	Questions	CO	Skills
11	Construct an Expression Tree for expression (a+b*c)+((d*e+f)*g). Give the output when you apply In order, Pre order and Post order traversals.Write the routines for inorder preorder traversals (10)	C202.4	A
	Or		
12	Create a Binary Search tree for 45, 26, 10, 60, 70, 30, and 40. Delete keys 10, 60 and 45 one after the other. Show the tree at each stage. Write the routine for Insertion and Deletion. (10)	C202.4	C
13	Given the input 4371, 1323, 6173, 4199, 4344, 9679, 1989 and a hash function of h(x) =X mod (10). Show the result for (i) Separate chaining hash table (ii) Open addressing hash table using linear probing. (10)	C202.5	AZ
	Or		
14	Sort the given inputs using Quick sort: 24, 56, 47, 35, 10, 90, 82, and 31.and write the routines for quick sort (10)	C202.5	A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain in detail about Merge sort.Write a C program to implement Merge sort. (10)	C202.6	A
	Or		
16	Define Searching. Explain its types with routines in detail. (10)	C202.6	R

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Saranathan College of Engineering
Tiruchirapalli

Internal Assessment III			Date/Session	03/02/2024 / FN	Marks	100
Course code	EC3352	Course Title	DIGITAL SYSTEM DESGN			
Batch No.		Duration	11/2 hrs	Academic Year	2023 - 2024	
Year	II	Semester/Section	03 / A & B	Department	ECE	

Part A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Compare Mealy and Moore model.	CO3	A
2	Write short notes on Ring counter.	CO3	R
3	With an example explain the various methods of state assignment.	CO3	R, U
4	Define lock out condition in synchronous sequential circuits.	CO4	Az
5	Differentiate pulse and fundamental mode in asynchronous circuit	CO4	R, U
6	What is meant by Critical race and Static-1 Hazard	CO4	R
7	Implement the function $f(A,B) = \sum_m(1,3,5)$, $Y(A,B) = \sum_m(0,2,7)$ using ROM	CO5	U, A
8	Calculate fan out of a gate which has I_{OH} = 500µA, I_{IH} = 50µA , I_{OL} = 20 mA, I_{IL}= 20 mA.	CO5	R, A, E
9	Write short notes on EEPROM & UVEPROM	CO5	R
10	Define noise margin and Propagation delay	CO5	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Design 3 bit synchronous UP/DOWN counter using D Flip Flops.	CO3	A, Az
	(OR)		
12	Design a counter that counts a sequence 3,5,6,7, 3 design the circuit in such a way that if it goes to invalid state it should come back to state 3. Use JK Flip Flops.	CO3	A, Az
13	Design a synchronous sequential detector using T-Flip Flop that produces output 1 whenever the non overlapping sequence of 1011 is detected.	CO3	A, Az
	(OR)		
14	A sequential circuit with two D Flip-Flops A and B, one input (x) and one output (y). the Flip-Flop input functions are: $D_A = Ax + Bx$, $D_B = A\,x$ and the circuit output function is, $Y = (A + B)\,x$. (a) Draw the logic diagram of the circuit, (b) Tabulate the state table, (c) Draw the state diagram	CO3	A, Az

Part C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	An asynchronous sequential circuit has two internal states Y_1 and Y_2 , and one output z . The two excitation functions and one output function describing the circuit are, respectively, $Y_1 = x_1x_2 + x_1y_2' + x_2'y_1$ $Y_2 = x_2 + x_1y_1'y_2 + x_1'y_1$ $z = x_2 + y_1$ Draw the logic diagram of the circuit. Obtain the transition table, Flow Table and Output map for the circuit.	CO4	A, Az
	(OR)		
16	Implement the following Boolean Functions using i) PLA programming and ii) PAL Programming, Use minimum number of product terms. A (x,y, z) = ∑m (2, 4, 6) B (x, y, z) = ∑m (0,1, 6, 7) C (x, y, z) = ∑m (2, 6) D (x, y, z) = ∑m (1, 2, 3, 5, 7) Implement the circuit with a PLA and PAL	CO5	A, Az

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SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI - 620012

Internal Assessment Test - III			Date/ Session	02/01/2024FN	Marks	50
Course code	EC3354	Course Title	SIGNALS AND SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	II	Semester/ Section	III / A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Determine the Nyquist sampling rate and Nyquist intervals for the following signal $x(t) = \sin c(200\pi t) + 3\sin c^2(120\pi t)$.	C205.4	R,U
2	Find the Fourier transform of the sequence $x(n) = \delta(n+2) - \delta(n-2)$	C205.4	A
3	Find the DTFT of the $x(n) = 2^n u(-n-1)$	C205.4	R,U
4	Determine the signal corresponds to the DTFT $X(e^{j\omega}) = e^{-j\omega}(0.5 + 0.5\cos\omega)$	C205.4	R,U
5	Determine the DTFT of the sequence $y(n) = (n)x(n)$	C205.4	R,U
6	Convolve the following 2 sequences $x(n) = \{1,1,1,1\}$ and $h\{n\} = \{3,2\}$ ↑ ↑	C205.5	R,U
7	Determine the impulse transform of the system described by $H(e^{j\omega}) = \begin{cases} 1 & for\ \lvert\omega\rvert \le \omega_c \\ 0 & otherwise \end{cases}$	C205.5	AZ
8	Find the convolution of the signals given below using DTFT $h(n) = \left(\frac{1}{2}\right)^n u(n)$ and $x(n) = \left(\frac{1}{3}\right)^n u(n)$	C205.5	E
9	The impulse response of a system is characterized by $h(n) = 5^n u(3-n)$. Determine whether the system is causal and stable.	C205.5	E
10	Determine the response of the initially relaxed system characterized by the impulse response $h(n) = \left(\frac{1}{3}\right)^n u(n)$ to the input signal $x(n) = 2^n u(n)$.	C205.5	C

Part – B

(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	(i) Determine Z transform and ROC of the following sequence. $x(n) = \sin(\omega_0 n)u(n)$. (ii) State and prove the following properties of Z Transform: Time shifting, Time reversal, and convolution.	C205.4	A,AZ,E
	Or		
12	(i) Find the DTFT of $x(n) = \left(\frac{1}{2}\right)^{n-1} u(n-1)$. (ii) Determine the DTFT of $a^{\lvert n\rvert}, \lvert a\rvert < 1$. (iii) Express the DTFT of the following signal $x_1(n) = x(1-n)$.	C205.4	AZ,E
13	(a) Find the value of $x(\infty)$ *if* $X(z)$ is given by $\frac{z+1}{5(z-1)(z+0.6)}$ (b) Determine the z transform of the following signal $x(n) = n\left(\frac{1}{3}\right)^{n-1} u(n-1)$	C205.4	AZ,E
	Or		

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14	a) Determine the Inverse Z Transform of $X(z)=\frac{1}{1-1.5z^{-1}+0.5z^{-2}}$; if ROC: (i) $\lvert z\rvert>1$ (ii) $\lvert z\rvert<0.5$ (iii) $0.5<\lvert z\rvert<1$ b) Find the samples of a causal sequence whose z transform is $X(z)=\frac{4z^{-1}}{2-2z^{-1}+z^{-2}}$	C205.4	AZ,E

Part – C

(Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Consider a DT LTI system with impulse response $h(n)=\left(\frac{1}{2}\right)^n u(n)$. Use Fourier transform to determine the response of the system to the input $x(n)=\left(\frac{3}{4}\right)^n u(n)$	C205.5	AZ,E,C
	Or		
16	a) Determine the impulse response and step response of the system $y(n)+y(n-1)-2y(n-2)=x(n-1)+2x(n-2)$. b) Evaluate the following integral using Parseval's theorem $\int_{-\pi}^{\pi}\frac{1}{\left\lvert 1-\frac{1}{4}e^{-j\omega}\right\rvert^2}d\omega$	C205.5	A,AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	28.12.23/ FN	Marks	50
Course code	CU4151	Course Title	ADVANCED WIRELESS COMMUNICATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	I	Semester/Section	I	Department	MECS	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	SSkills
1	Define: MIMO	C105.4	*R*
2	What is meant by Diversity Gain?	C105.4	*U*
3	Define: Multiplexing Gain:	C105.4	*U*
4	Define: Beam Forming.	C105.4	*U*
5	Define:STBC	C105.4	*R*
6	Define: STTC.	C105.4	*U*
7	Give types of MIMO architecture.	C105.4	*R*
8	Write short notes on BLAST architecture	C105.4	*R*
9	Distinguish between D-BLAST & V-BLAST architecture	C105.4	*R*
10	Give the difference between MISO & MIMO.	C105.4	*R*

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the different types of BLAST architecture.	C105.4	*R*
	or		
12	Explain about the Narrow Band MIMO models.	C105.4	*U*
13	Describe about the parallel decomposition process in detail	C105.4	*R*
	or		
14	Describe about the spatial multiplexing and beam forming in detail	C105.4	*R*

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Derive the equation of MIMO channel capacity of static channel.	C105.4	*AZ*
	or		
16	Derive the equation of MIMO channel capacity of fading channel.	C105.4	*AZ*

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Saranathan College of Engineering

Tiruchirappalli – 620012

Internal Assessment Test - III			Date/ Session	22.12.2023/ FN	Marks	50
Course code	CU4152	Course Title	Radiating Systems			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/ODD	
Year/	I -ME	Semester/ Section	I	Department	ECE	

Part – A (20 Marks)

Part - A

Answer allthe Questions **(10x1=10Marks)**

Q. No.	Questios	CO	Skills
1	Define PIFA.	C401.4	R
2	List out the Diversity Technique.	C401.4	R
3	Define Categorization of MIMO antenna designs.	C401.4	A
4	List out the various type of base antennas.	C401.4	R
5	Difference between macro and micro diversity	C401.4	E
6	Define plasma antenna.	C401.5	U
7	List out the design approaches for MIMO antenna	C401.5	A
8	Define Antennas in medicine.	C401.5	A
9	Define Artificial magnetic conductors/High impedance surfaces	C401.5	U
10	List out the advantages and applications of Automotive antenna.	C401.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the RFID Antennas.	C401.2	U,E
	or		
12	Describe the UWB array antenna.	C401.2	U,R
13	Short notes on Automotive antenna.	C401.3	U,R
	or		
14	Explain in detail about MIMO Antenna	C401.3	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain in detail about Diversity Techniques	C401.4	U,R
	or		
16	Short notes on – Vivaldi antenna arrays.	C401.5	U,R

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Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – III			Date/Session		Marks	50
Course code	MA4156	Course Title	LINEAR ALGEBRA, PROBABILITY AND QUEUEING THEORY			
Batch No.		Duration	90 mins	Academic Year		2023 - 2024
Year/	I	Semester/Section	I	Department		ECE-MECS

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	State the four types of random Processes	C03	R
2	Define a stationary process.	C03	R
3	A random process x(t) is characterized by four sample functions $X(t,s_1)= -1$, $X(t,s_2) = -2$ $x(t,s_3)= 3$, $X(t,s_4)=t$ .Prove that X(t) is not WSS.	C03	A
4	Prove that the difference of two independent Poisson processes is not a Poisson process	C03	R
5	A radioactive source emits particles at a rate of 5 per minute in accordance with Poisson process. Each particle emitted has a probability 0.6 of being recorded. Find the probability that 10 particles are recorded in 4-min period.	C03	E
6	What is meant by queue Discipline ?	C04	R
7	Define Kendals notations for queueing model ?	C04	R
8	Consider an M|M|1 queuing system. If $\lambda = 6$ and $\mu = 8$, Find the probability of atleast 10 customers in the system.	C04	E
9	Consider an M|M|C queuing system. Find the probability that an arriving customer is forced to join the queue.	CO4	R
10	If there are two servers in an infinite capacity Poisson queue system with $\lambda=10$ and $\mu=15$ per hour, what is the percentage of idle time for each server ?	CO4	E

Part – B(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	**(i)If X(t) = Y cost + Z sint for all t where Y and Z are independent random variables each of which assume the values -1 and 2 with probability 2/3 and 1/3 respectively. Is {X(t)} is WSS or not.** **(ii) State and prove the postulates of Poisson process**	C03	E
	Or		
12	**(i)Show that the random process X(t) = 10 cos (100ωt +θ) is WSS where θ is a uniformly distributed random variable in the interval $(-\pi,\pi)$** **(ii) Write short note about Gaussian Process.**	C03	E
13	**(i)Show that X(t) = A cosλt + B sinλt and Y(t) = B cosλt – A sinλt are jointly WSS where A and B are uncorrelated random variables with zero mean and equal variance** **(ii) State and prove any three properties of Poisson Process**	C03	E
	Or		
14	The t.p.m. of a Markov chain {Xn, n = 0,1,2,3…} with 3 states 0,1,2 is $P = \begin{bmatrix} \frac{3}{4} & \frac{1}{4} & 0 \\ \frac{1}{4} & \frac{1}{2} & \frac{1}{4} \\ 0 & \frac{3}{4} & \frac{1}{4} \end{bmatrix}$ And the initial distribution is $P[X_0 = i] = 1/3$ where i=0, 1,2 Find	CO3	E

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	(a) P[x2 = 2/x1 = 0] (b) P[x3 = 1; x2 = 2; x1 = 1; x0 = 2] (c) P[x2 = 1] (d) state distribution of the process at the second step (e) Stationary distribution of the process.		
PART –C (1X10)			
15	A petrol pump station has 4 pumps . The service times follow the exponential distribution with a mean of 6 min and cars arrive for service in a Poisson process at the rate of 30 cars per hour. (a) What is the probability that an arrival would have to wait in line? (b) Find the average waiting time, average time spent in the system & the average number of cars in the system. (c) For what percentage of time would a pump be idle on an average	**CO4**	**E**
Or			
16	Customers arrive at a one man barber shop according to a poisson process with a mean inter arrival time of 12 min. Customers spend an average of 10 min in the barber's chair. (a) What is the expected number of customers in the barber shop and in the queue? (b) Calculate the% of time an arrival can walk straight into the barber's chair without having to wait (c) How much time can a customer expect to spend in the barber's shop? (d)Management will provide another chair and hire another barber, when a average rate of arrivals increase to warrant a second barber (e) What is the average time customers spend in the queue? (f) What is the probability that the waiting time in the system is greater than 30 min? (g) Calculate the percentage of customers who have to wait prior to getting into the barber's chair (h) What is the probability that more than 3 customers are in the system?	**CO4**	**E**

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SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI - 620012

Internal Assessment Test - III			Date/ Session	31/12/2024FN	Marks	50
Course code	DL 4152	Course Title	STATISTICAL SIGNAL PROCESSING			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	I	Semester/ Section	I/ M E C S	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List the types of popular estimators	C205.2	R,U
2	What is the principle of MVUE?	C205.2	A
3	What is meant by Cramer Rao-Lower bound?	C205.2	R,U
4	Write shirt notes on unbiased estimators?	C205.2	R,U
5	What are called Effcient estimators?	C205.2	R,U
6	State the principle of Bayesian estimators.	C205.2	R,U
7	Write Hit and Miss Cost function.	C205.2	AZ
8	What is the core function of MAP?	C205.2	E
9	What si the gain term of Kalman filters?	C205.5	E
10	What is the objective of optimal selection?	C205.5	C

Part – B

(Answer all the questions 2 x 10 = 20marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Explain in detail about the properties of Estimators?	C205.2	R,U,AZ, E
	Or		
12	Write an essay on the principle of operation and applications of Cramer Rao lower bound.	C205.2	AZ,E
13	Explain in detail about the Bayesian estimators	C205.2	AZ,E
	Or		
14	With the necessary equations explain in detail about the construction and operation of a Forward linear predictor	C205.2	AZ,E

Part – C

(Answer all the questions 1 x 10 = 10marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Explain in detail about the operation of Kalman filters in detail.	C205.5	AZ,E,C
	Or		
16	With the necessary equations explain in detail about the construction and operation of a backward linear predictor	C205.5	A,AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	28 .12.2023	Marks	50
Course code	EL4151	Course Title	MODERN DIGITAL COMMUNICATION SYSTEMS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year/	I	Semester/ Section	I / PG	Department	M.E .CS	

Part – A(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Differentiate systematic and non-systematic convolution codes	C104.4	Az
2	State the 3 graphical representations used in study of convolutional encoding	C104.4	R
3	Give the advantages of viterbi decoding.	C104.4	U
4	What is branch word synchronization?	C104.4	R
5	Define trellis diagram and code tree.	C104.4	U
6	Give the applications of state diagram.	C104.4	E
7	State the principle of soft handover.	C104.5	U
8	How is multi-user detection performed in CDMA?	C104.5	U
9	Define interfrequency hand-over.	C104.5	Az
10	What is meant by windowing?	C104.5	R

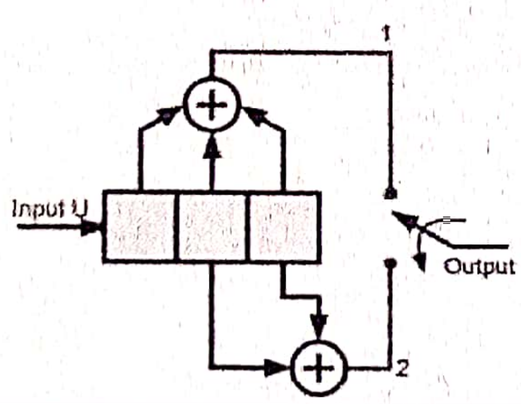
Part – B

(Answer all the questions 2x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Derive the Error probability performance for BPSK	C104.4	R
	or		
12	Brief a note on Turbo codes and explain BCJR Algorithm for MAP Detection.	C104.4	U
13	With neat diagram explain RAKE receiver	C104.5	E
	or		
14	With neat sketch elaborate the FH-CDMA and TH-CDMA techniques.	C104.5	C

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Draw the state diagram, tree diagram and trellis diagram for the K=3, rate=1/3 code generated by g1(X) = X + X 2 , g2(X) = 1 + X + X 2 , g3(X) = 1 + X	C104.4	Az
	Or		
16	Draw the state diagram, tree diagram and trellis diagram for the convolution encoder characterized by the block diagram 	C104.4	U

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th Feb"2024

Circular

First Internal Assessment Test for Third Year (6th Sem.) B.E./B.Tech., Classes will commence from 26th February 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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Saranathan College of Engineering
Tiruchirapalli - 12
FIRST IA Test_for Third Year B.E./B.Tech., _ February / March 2024

Year: Third Year

Date /Branch	26.2.2024	27.2.2024	28.2.2024	29.2.2024	2.3.2024	4.3.2024
CSE	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded Systems and IOT	CCW331 - Business Analytics	CCS334 - Big Data Analytics	CCS336 - Cloud Services Management	CCS341 - Data Warehousing
ECE	CEC349 - RFID System Design & Testing	OEE351 - Renewable Energy System	CEC354 - Software Defined Networks	CS3491 - Artificial Intelligence and Machine Learning	ET3491 - Embedded Systems and IOT Design	
EEE	EE3601 - Protection and Switchgear	EE3602 - Power System Operation and Control	OCS352 - IOT Concepts and Applications	EE3011 - Multilevel Power Converters	EE3020 - Smart System Automation	
IT	CCS356 - Object Oriented Software Engineering	CCS366 - Software Testing and Automation	CCS354 - Network Security	CCS335 - Cloud Computing	CCS334 - Big Data Analytics	
ICE	EI3651 - Industrial Automation Systems	CIC341 - Electric Vehicle Technology	CIC343 - Instrumentation in Petrochemical Industry	CIC340 - Analytical Instrumentation	CIC339 - Fibre Optics Instrumentation	EI3652 - Introduction to Industrial Processes, Measurement and Control
Mech.,	CME386 - Gas Dynamics and Jet Propulsion	CME384 - Power Plant Engineering	CME380 - Automobile Engineering	ME3691 - Heat and Mass Transfer	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	
Civil	CE3502 - Structural Analysis II	AG3601 - Engineering Geology	CE3013 - Advanced Construction Techniques	CE3601 - Design of Steel Structural Elements	CE3009 - Construction Equipment and Machinery	CCE332 - Environmental Health and Safety
CSBS	CCW331 - Business Analytics	CCS356 - Object Oriented Software Engineering	CCW332 - Digital Marketing	CCS360 - Recommender Systems	CCS346 - Exploratory Data Analysis	CW3007 - IT Project Management
AIDS	CCS365 - Software Defined Networks	CS3691 - Embedded System & IOT	CCS372 - Virtualization	CCW332 - Digital Marketing	CCS336 - Cloud Service Management	

Principal

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 1 (III YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

25.02.2024

S.no	STAFF NAME	26.02.2024	27.02.2024	28.02.2024	29.02.2024	02.03.2024	04.03.2024	
	DAY ORDER	V	I	II	III	IV	V	
1	Dr. S.A Arunmozhi	@					@	2
2	Dr. S Rajeswari					@		1
3	Dr. V Mohan		@					1
4	Dr. P Shanmugapriya			@				1
5	Dr. M Baritha Begum		@					1
6	Mr. S Hariprasath					@		1
7	Dr. K Malaisamy			@	@			2
8	Ms. P Sivagamasundhari		@		@			2
9	Ms.J.Eindhumathy			@			@	2
10	Mr. M Mahendran	@						1
11	Mr. G Sivakannu						@	1
12	Ms. S Kiruthiga			@		@		2
13	Ms. M Anthuvan Lydia		@		@			2
14	Ms. B.Divya	@						1
15	Ms. Dr.N.Preethi Elizabeth					@		1
16	Mr.A.Kesavan	@					@	2
		4	4	4	3	4	4	23

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12					
IAT I III ECE HALL ARRANGEMENT					
KS 110	ECE	A	III	242001-242009	9
KS 111	ECE	A	III	242010-242025	16
KS 113	ECE	A	III	242026-242047	21
KS 114	ECE	A/B	III	242048-242059 242062,242127,128,129,130,131 242064-242065	20
KS 213	ECE	A/B	III	242067-242084	18
KS 214	ECE	B	III	242085-242101	16
KS 215	ECE	B	III	242102-242117	16
KS 307	ECE	B	III	242118-242126,132	10

H. Sd
HOD/ECE

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Saranathan College of Engineering

Tiruchirappalli – 620012

Internal Assessment Test - I			Date/ Session	2024/ FN	Marks	50
Course code	CEC354	Course Title	Software Defined Networks			
Batch No.		Duration	90 mins		Academic Year	2023 – 2024/EVEN
Year/	III	Semester/ Section	VI/A&B		Department	ECE

Part – A (20 Marks)

Answer all the Questions (10x2=20 Marks)

Q. No.	Questions	CO	Skills
1	Justify traditional networks are inadequate to meet out today's demand.	C312PE5V84.1	R
2.	List the requirements of SDN approach.	C312PE5V84.1	U
3	Compare the control and data planes of traditional network and SDN with diagram.	C312PE5V84.1	A
4	Give the characteristics of SDN.	C312PE5V84.1	R
5	What are the SDN and NFV related efforts of ONF and ODCA.	C312PE5V84.1	U
6	Draw the diagram of data plane network device.	C312PE5V84.1	U
7	What do you mean by fast fail over type.	C312PE5V84.1	R
8	List out the components of group table.	C312PE5V84.1	U
9	State the features of open day light	C312PE5V84.2	R
10	What is protocol oblivious forwarding?	C312PE5V84.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the architecture of software defined networks	C312PE5V84.1	U
	OR		
12	Draw the open flow switch diagram and explain the flow table structure in detail.	C312PE5V84.1	A
13	Explain the control plane architecture of SDN with neat diagram.	C312PE5V84.2	R,U
	OR		
14	Describe the features of south bound interface.	C312PE5V84.2	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain the packet flow through an open flow switch in detail along with ingress and egress processing.	C312PE5V84.1	R,U
	OR		
16	Explain open flow protocol with different types of messages.	C312PE5V84.1	U,A

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Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test - I			Date	29-02-24	Marks	50
Course code	CS3491	Course Title	Artificial Intelligence and Machine Learning			
Batch No.		Duration	90 mins	Academic Year	2023-24 Even	
Year	III	Semester	V	Department	ECE-A&B	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q.No.	Questions	CO	Skills
1	Define Artificial Intelligence. Write any four applications of AI.	C310.1	R
2	List out the classification of CSP with respect to constraints.	C310.1	R
3	How is the performance of search strategies evaluated?	C310.1	U
4	Differentiate informed and uninformed search techniques.	C310.1	U
5	Write the significance of using heuristic function in search algorithm	C310.1	R
6	What is the purpose of memory bound heuristic search?	C310.1	U
7	Define rationality concepts in agents.	C310.1	R
8	Define Bayes' rule.	C310.2	R
9	What do you mean by conditional independence?	C310.2	U
10	List the issues faced by agents in handling uncertainty	C310.2	U

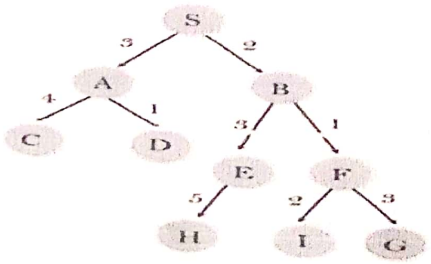
Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q.No.	Questions	CO	Skills
11	Discuss any 2 uninformed search methods with examples.	C310.1	U
	OR		
12	Explain Iterative Deepening and Bidirectional search with an example.	C310.1	U
13	Write in detail about Simplified Memory bounded with an example.	C310.1	U
	OR		
14	Explain constraint satisfaction problem in detail.	C310.1	U

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q.No.	Questions	CO	Skills
ExC	Explain and Discuss any informed search-A* search with an example.		
15		C310.1	A

node	H (n)
A	12
B	4
C	7
D	3
E	8
F	2
H	4
I	9
S	13
G	0

	OR		
16	Explain alpha beta cutoff algorithm with an example.	C310.1	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Prepared by Mr.P.B.Arun Prasad & Ms.E.Shapna Rani

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Saranathan College of Engineering, Tiruchirapalli

Internal Assessment I			Date/Session	02.03.2024 / FN	Marks	50
Course code	ET3491	Course Title	Embedded Systems and IoT design			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	06 / A/B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the difference between microprocessor and microcontroller?	C301.1	R
2	What is the significance of PSEN in memory interfacing?	C301.1	U
3	Briefly explain Stack operation in 8051.	C301.1	AZ
4	Name the flags in 8051 microcontroller and write their significance.	C301.1	R
5	Write a program to monitor P1 continuously for the value 65H.It should get out of the monitoring only if P1=65H.	C301.1	AZ
6	Differentiate between timer and counter	C301.2	R
7	A switch is connected to pin P1.0 and LED to pin P2.7. Write an 8051 ALP to get the status of the switch and send it to LED	C301.2	U
8	Name the type of Addressing modes :MVI A,#3h,MOV A,R7,MOV A,40H,PUSH 04H	C301.2	U
9	Define Embedded system and specify any four examples.	C301.2	R
10	What are the main components of embedded systems?	C301.2	AZ

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Draw the architecture of 8051 and Explain.	C301.1	R
	(OR)		
12	Explain the different modes of operation of serial port in 8051, indicating various registers associated with it.	C301.1	R
13	Explain Embedded design process with an example.	C301.2	R,AZ
	(OR)		
14.	Design an Elevator system using embedded system design process.	C301.2	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the various interrupt handling methods with neat sketch.	C301.1	R
	(OR)		
16	(i) Assuming XTAL=11.0592MHz,Write a program to generate a square wave of 50Hz frequency on pin2.3.(7) (ii) What are the various baud rates possible in 8051 and how are they set? (3)	C301.1	R, E,A

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Saranathan College of Engineering

III-ECE-125

Tiruchirappalli – 620012

Internal Assessment Test - I		Date/ Session	26.2.2024/FN	Marks	50
Course code	CEC349	Course Title	RFID System Design and Testing		
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year/	III	Semester/ Section	VI/A&B	Department	ECE

Part – A (20 Marks)

Answer all the Questions (10x2=20 Marks)

Q. No.	Questions	CO	Skills
1	List the merits of RFID over Barcode reader.	C313PE6V36.1	R
2	List the applications of RFID	C313PE6V36.1	U
3	Define RFID.	C313PE6V36.1	R
4	Draw the Logical components of an RFID tag.	C313PE6V36.1	R
5	Write Backscattering principle.	C313PE6V36.1	U
6	List the limitations of Generations 1 standard.	C313PE6V36.2	U
7	Draw the Format of a 96-bit EPCglobal tag.	C313PE6V36.2	R
8	What is meant by NFC?	C313PE6V36.2	R
9	Define collision in RFID and how do you avoid in RFID?	C313PE6V36.2	U
10	List out the applications of RFID proximity cards.	C313PE6V36.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(i) Define load modulation and explain its mechanism in near field RFID tag.. (ii) Explain the properties of Magnetic fields.	C313PE6V36.1	U
	OR		
12	Analyze Far-field power/communication mechanism for RFID tags.	C313PE6V36.1	A
13	Explain Query Tree protocol with the given inputs as 110110, 001001, 101010, 111011,000100,001100.	C313PE6V36.2	R,U,A
	OR		
14	Explain Query Tree protocol with neat diagram.	C313PE6V36.2	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Compare the properties of RFID operation in different frequency bands.	C313PE6V36.1	R,U,A
	OR		
16	Explain the properties of backscatter RF systems with the relevant equations	C313PE6V36.1	U,A

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Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	27/02/2024/FN	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List out the major factors influencing the amount of Green House Gas emissions.	311OE15.1	U
2	What is meant by Primary and Secondary Energy source? Give examples.	311OE15.1	U
3	List the advantages of Renewable Energy Systems.	311OE15.1	U
4	Give the various common forms of Energy.	311OE15.1	R
5	Mention the total installed capacity of RE sources-based power generation in India.	311OE15.1	U
6	Define Declination angle.	311OE15.2	R
7	What is Concentration Ratio in a Solar Collector?	311OE15.2	R
8	Differentiate between beam and diffused radiation.	311OE15.2	U
9	What are the limitations of solar energy utilization techniques?	311OE15.2	U
10	Compare Thin film, Monocrystalline and Polycrystalline solar cells.	311OE15.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	With Neat diagram explain the Battery Charging system with its key set points.	311OE15.2	A
	or		
12	With neat diagram explain the operation of Pyranometer and Pyrheliometer. (5+5)	311OE15.2	A
13	With neat diagram explain any three solar plate collectors. (4+3+3)	311OE15.2	A
	or		
14	With neat diagram explain the operation of a solar cell and its characteristics.	311OE15.2	A

Part – C
(Answer all the questions 1 x 10 = 10 marks)

15	(a) Analyze the availability and efficiency of conversion of non-conventional energy sources in India. State the important features of availability and efficiency as found from this analysis. (6) (b) List the Advantage and Disadvantages of conventional energy systems. (4)	311OE15.1	AZ
	or		
16	(a) Compare the energy consumption pattern in various sections in India. Discuss the growth rate of energy requirements and power generation in India. (6) (b) Explain the classification of Energy sources (4)	311OE15.1	AZ

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Saranathan College of Engineering
Tiruchirapalli – 12

21 March 2024

Circular

Second Internal Assessment Testfor Third Year (6th Sem.)& Final Year (8th Sem.) for B.E./B.Tech., Classes will commence from 25th March 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Third Year (6th Sem.) _ April 2024

Year: Third Sem. 6th

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
25th March 2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing	EE3601 - Protection and Switchgear	CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer	CE3602 - Structural Analysis II	CCW331 - Business Analytics	CCS365 - Software Defined Networks
26th March 2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3602 - Power System Operation and Control	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
27th March 2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	OCS352 - IOT Concepts and Applications	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
28th March 2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	EE3011 - Multilevel Power Converters	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
1st April 2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3020 - Smart System Automation	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
2nd April 2024	CCS341 - Data Warehousing				CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	

Principal

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 2 (III YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

23.03.2024

S.no	STAFF NAME	25.03.2024	26.03.2024	27.03.2024	28.03.2024	01.04.2024	02.04.2024	
	DAY ORDER	IV	V	I	II	III	IV	
1	Dr. S.A Arunmozhi	@			@			2
2	Dr. S Rajeswari					@		1
3	Dr. V Mohan			@				1
4	Dr. P Shanmugapriya					@		1
5	Dr. M Baritha Begum		@					1
6	Mr. S Hariprasath		@					1
7	Dr. K Malaisamy				@			1
8	Ms. P Sivagamasundhari				@			1
9	Ms.J.Eindhumathy					@	@	2
10	Mr. M Mahendran			@				1
11	Mr. G Sivakannu	@						1
12	Ms. S Kiruthiga						@	1
13	Ms. M Anthuvan Lydia			@				1
15	Ms. Dr.N.Preethi Elizabeth		@					1
16	Mr.A.Kesavan	@					@	2
		3	3	3	3	3	3	18

HOD/ECE

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IAT2 (III year) Seating Arrangement

SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12

JS CH-B	ECE	A	III	242001-242006
JS CH-C	ECE	A	III	242007-242024
JS CH-D	ECE	A	III	242025-242043
BD CH-A1	ECE		III	242044-242057
BD CH-A2	ECE	A/B	III	242058-242059 242062,63,24217,128,129,130,131 242064-242066
BD CH-B1	ECE	B	III	242067-242079
BD CH-B2	ECE	B	III	242080-242091
BD CH-C1	ECE	B	III	242092-242105
BD CH-C2	ECE	B	III	242106-242117
KS 109	ECE	B	III	242118-242126,132

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 2 (III YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

23.03.2024

S.no	STAFF NAME	25.03.2024	26.03.2024	27.03.2024	28.03.2024	01.04.2024	02.04.2024	
	DAY ORDER	IV	V	I	II	III	IV	
1	Dr. S.A Arunmozhi	@			@			2
2	Dr. S Rajeswari					@		1
3	Dr. V Mohan			@				1
4	Dr. P Shanmugapriya					@		1
5	Dr. M Baritha Begum		@					1
6	Mr. S Hariprasath		@					1
7	Dr. K Malaisamy				@			1
8	Ms. P Sivagamasundhari				@			1
9	Ms.J Enchumathy					@	@	2
10	Mr. M Mahendran			@				1
11	Mr. G Sivakannu	@						1
12	Ms. S Kiruthiga						@	1
13	Ms. M Anthuvan Lydia			@				1
15	Ms. Dr. N.Preethi Elizabeth		@					1
16	Mr.A.Kesavan	@					@	2
		3	3	3	3	3	3	18

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12

INTERNAL ASSESSMENT TEST 2 - III YEAR BE/B.TECH - EVEN SEM 2023-24

SEATING ARRANGEMENT

ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
JS CH-B	ECE	A	III	242001-242006	6
JS CH-C	ECE	A	III	242007-242024	18
JS CH-D	ECE	A	III	242025-242043	19
BD CH-A1	ECE		III	242044-242057	13
BD CH-A2	ECE	A/B	III	242058-242059 242062,63,24217,128,129, 130,131 242064-242066	12
BD CH-B1	ECE	B	III	242067-242079	13
BD CH-B2	ECE	B	III	242080-242091	12
BD CH-C1	ECE	B	III	242092-242105	13
BD CH-C2	ECE	B	III	242106-242117	12
KS 109	ECE	B	III	242118-242126,132	10

HOD/ECE

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Saranathan College of Engineering

Tiruchirappalli – 620012

III-ECE-125

Internal Assessment Test - II		Date/ Session	27.3.2024/ FN	Marks	50
Course code	CEC354	Course Title	Software Defined Networks		
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year/	III	Semester/ Section	VI/A&B	Department	ECE

Part – A (20 Marks)

Answer all the Questions (10x2=20 Marks)

Q. No.	Questions	CO	Skills
1	What are the two distinct functions performed by centralized routing application	C312PE5V84.2	R
2	Mention the 3 APIs of SDN controller with its functions.	C312PE5V84.2	U
3	List out the components of message types of SDNi.	C312PE5V84.2	A
4	Brief the 3 functional procedures involved in BGP.	C312PE5V84.2	R
5	Write the descriptions of the following features of ODL Helium. a)OVSDB b)SNBi c)open stack service d)AAA	C312PE5V84.2	U
6	List out the goals of security applications in SDN.	C312PE5V84.3	U
7	What is forwarding abstraction?	C312PE5V84.3	R
8	What is Frenetic and how it is employed in SDN?	C312PE5V84.3	U
9	Write a python code for a switch when it joins a network with forwarding rules for 3 different types of traffic.	C312PE5V84.3	R
10	What is measurement and monitoring in SDN applications?	C312PE5V84.3	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the architecture of Open Day Light	C312PE5V84.2	U
	OR		
12	Draw the ITU-T model and explain the features in detail.	C312PE5V84.2	A
13	Explain the REST API of SDN with neat diagram.	C312PE5V84.2	R,U
	OR		
14	Describe the cooperation and coordination among SDN controllers with one example.	C312PE5V84.2	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain the SDN application plane architecture with neat diagram.	C312PE5V84.3	R,U
	OR		
16	Explain how traffic engineering is implemented in SDN applications.	C312PE5V84.3	U,A

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Saranathan College of Engineering
Tiruchirapalli

III-ECE-125

Internal Assessment Test - II			Date/ Session	26/03/2024	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Compare Rooftop Solar System with BIPV system.	311OE15.2	U
2	Write the advantages of Solar Water Pumps.	311OE15.2	U
3	Draw the block Diagram of a Solar Street light system.	311OE15.2	R
4	Define Gusts.	311OE15.3	R
5	Write the different types of Horizontal Axis Wind Turbines.	311OE15.3	R
6	Define Power Co-efficient of WECS.	311OE15.3	R
7	Why utilization of wind is considered as part of solar technology?	311OE15.3	U
8	Draw the block diagram of a wind power plant.	311OE15.3	R
9	Define Stalling of Wind Power Plant.	311OE15.3	R
10	Write the merits and demerits of Three blade Rotor over Two blade Rotor.	311OE15.3	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Draw the Schematic Diagram of the Standalone Solar Photovoltaic System. What are the Main components used in it? Explain their function.	311OE15.2	A
	Or		
12	(i) Explain the operation of Grid Connected Solar Photovoltaic System with and without Battery backup. (6) (ii) With neat diagram, Explain the operation of Solar-wind Hybrid System. (4)	311OE15.2	A
13	Explain briefly about the types of wind mills with neat Sketch.	311OE15.3	A
	Or		
14	Describe in detail the site selection procedure of a wind power plants.	311OE15.3	A

Part – C
(Answer all the questions 1 x 10 = 10 marks)

15	Derive the power extracted from wind along with the wind Power Vs Speed characteristics.	311OE15.3	A
	Or		
16	With neat diagram explain the Wind Energy Conversion System (WECS)	311OE15.3	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash, Mr.R.Sridhar

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III - ECE
25/March/2024-25

Saranathan College of Engineering

Tiruchirappalli – 620012

Internal Assessment Test - II					
Course code	CEC349	Course Title	RFID System Design and Testing	Marks	50
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year/	III	Semester/ Section	VI/A&B	Department	ECE

Part – A (20 Marks)

Answer all the Questions **(10x2=20 Marks)**

Q. No.	Questions	CO	Skills
1	What are the essential components in RFID tag?	C313PE6V36.3	R
2	List out the applications of passive RFID tag?	C313PE6V36.3	U
3	Define Read range using Friis transmission	C313PE6V36.3	R
4	What is meant by RFID middleware?	C313PE6V36.3	R
5	Draw Miller and Manchestor encoding for the binary pattern 1011011000.	C313PE6V36.3	U
6	Define Anticollision procedure.	C313PE6V36.4	U
7	List out the types of checksum procedure	C313PE6V36.4	R
8	List the basic four anti collision procedure.	C313PE6V36.4	R
9	State the advantages of Dynamic binary search tree algorithm.	C313PE6V36.4	R
10	What is the significance of binary search algorithm?	C313PE6V36.4	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about RFID tag components?	C313PE6V36.3	U
	OR		
12	Explain RFID reader and middleware component?	C313PE6V36.3	A
13	Explain the various type of checksum procedure with examples.	C313PE6V36.4	R,U,A
	OR		
14	Explain any two multi access procedure for anti collision.	C313PE6V36.4	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain the cryptographic measures for RFID attack.	C313PE6V36.4	R,U,A
	OR		
16	Explain the Attacks on the Transponder	C313PE6V36.4	U,A

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Saranathan College of Engineering
Tiruchirapalli

III - ECE - 125

Internal Assessment Test - II			Date/Session	01.04.24/ FN	Marks	50
Course code	ET3491	Course Title	EMBEDDED SYSTEMS AND IOT DESIGN			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	06 / A & B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is Busy-wait I/O?	C301.2	R
2	Distinguish between Memory mapped I/O and I/O mapped I/O.	C301.2	U
3	Name the different operating Modes of ARM Processor.	C301.2	R
4	Differentiate between RISC and CISC processors	C301.2	R
5	Explain in briefly about FIQ interrupt and IRQ interrupt of ARM processor.	C301.2	R
6	What is compilation process? Name the steps involved in Compilation process.	C301.2	R
7	With an example, explain CDFG.	C301.2	R
8	What do you mean by real time embedded system?	C301.3	R
9	List out the advantages of Scheduling in real time systems.	C301.3	U
10	Mention the types of embedded real time systems.	C301.3	A

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Write a note on (i) Supervisory mode(ii) Exceptions and (iii)Traps	C301.2	R, U
	(OR)		
12	Explain with neat sketches about Assembly, Linking and Loading processes.	C301.2	R, U
13	a) With neat sketches, explain the structure of Embedded real time systems(5) b) Explain about Task assignment, reasons for the task assignment and mention the factors to be considered when assigning tasks. (5)	C301.3	R,U, AZ
	(OR)		
14	a) Explain in detail about scheduling and the types of scheduling. (6) b) Explain in detail about the classifications of task scheduling algorithms.(4)	C301.3	R, U

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	a) Explain the programming model of ARM processor. (3) b) Discuss the following instructions of ARM processor with examples. (7) i)Arithmetic and Logic instructions ii)Logical instructions iii) Load/Store instructions	C301.2	R, U
	(OR)		
16	i. Explain a Model Train Controller with suitable diagrams. (4) ii. Outline the design steps of Model Train Controller in detail. (6)	C301.2	U, A, AZ

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III-ECE-125

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test - II		Date	28.03.24	Marks	50
Course code	CS3491	Course Title	Artificial Intelligence and Machine Learning		
Batch No.		Duration	90 mins	Academic Year	2023-24 Even
Year	III	Semester	VI	Department	ECE-A&B

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Given that P(A)=0.3, P(A|B) =0.4 and P(B)=0.5, Compute P(B|A).	C310.2	R
2	What does the full joint probability distribution specify?	C310.2	R
3	What is the difference between artificial learning and machine learning?	C310.3	U
4	What is 'Overfitting' in Machine learning?	C310.3	U
5	What is the main key difference between supervised and unsupervised machine learning?	C310.3	R
6	What is the difference between least squares regression and multiple regressions?	C310.3	U
7	What is standard error rate why need to calculate it?	C310.3	R
8	Difference between testing and training in model.	C310.3	U
9	What are types of classification models?	C310.4	R
10	Difference between unsupervised and reinforcement learning.	C310.4	R

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	How to get the exact inference form Bayesian network	C310.2	U
	OR		
12	How to get the approximate inference from Bayesian network.	C310.2	U
13	Explain Linear Regression Models with an example. x: 1, 3, 5, 7, 9, 4, 6 y: 1, 4, 3, 7, 5, 6, 2	C310.3	AZ
	OR		
14	Explain Naive bayes algorithm with an example. D1: SUNNY, HIGH, WEAK, NO D2: OVERCAST, HIGH, STRONG, NO D3: RAINY, HIGH, WEAK, YES (Day, Outlook, Humidity, Wind, Run)	C310.3	AZ

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		HIGH	WEAK	NO
D4	RAINY	NORMAL	WEAK	YES
D5	SUNNY	HIGH	WEAK	YES
D6	SUNNY	HIGH	WEAK	YES
D7	SUNNY	NORMAL	STRONG	NO
D8	RAINY	HIGH	WEAK	YES
D9	OVERCAST	HIGH	WEAK	YES
D10	SUNNY	HIGH	WEAK	NO
D11	RAINY	NORMAL	STRONG	NO
D12	OVERCAST	HIGH	WEAK	YES
D13	OVERCAST	HIGH	WEAK	YES
D14	SUNNY			

Find out the prediction of run (yes or no) based on the condition of D15 SUNNY, HIGH, STRONG?

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Explain Linear Regression Models with least square method and error estimation with an example values. N=10, $\sum x=80$, $\sum y=255$, $\sum xy=2289$, $\sum x^2=756$, $\sum y^2=7097$, $(\sum x)^2=6400$, $(\sum y)^2=65025$	C310.4	AZ
	OR		
16	Explain Decision Tree Classification with an example.	C310.4	AZ

SIZE	COLOR	SHAPE	CLASS
SMALL	YELLOW	ROUND	A
BIG	YELLOW	ROUND	A
BIG	RED	ROUND	A
SMALL	RED	ROUND	A
SMALL	BLACK	ROUND	B
BIG	BLACK	CUBE	B
BIG	YELLOW	CUBE	B
BIG	BLACK	ROUND	B
SMALL	YELLOW	CUBE	B

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill needs to be mentioned against each question

Prepared by Mr.P.B.Aunprasad and Ms.E.Shapna Rani

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.17th April 2024

Circular

Third internal Assessment Test for Third Year (6th Sem.) for B.E. / B.Tech., Classes will commence from 22nd April 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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Saranathan College of Engineering
Tiruchirapalli - 12
THIRD - IA Test for Third Year (6th Sem.) _ April _ May 2024

Year: Third Sem. 6th

Date /Branch	CIE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
22.4.2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing		CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer		CCW331 - Business Analytics	CCS365 - Software Defined Networks
23.4.2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3601 - Protection and Switchgear	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
24.4.2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	EE3602 - Power System Operation and Control	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
25.4.2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	OCS352 - IOT Concepts and Applications	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
29.4.2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3011 - Multilevel Power Converters	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
30.4.2024	CCS341 - Data Warehousing		EE3020 - Smart System Automation		CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	
2.5.2024							CE3602 - Structural Analysis II		

Principal

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 3 (III YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

21.04.2024

S.no	STAFF NAME	22.04.2024	23.04.2024	24.04.2024	25.04.2024	29.04.2024	30.04.2024	
	DAY ORDER	I	II	III	IV	V	I	
1	Dr. S.A Arunmozhi	@						1
2	Dr. S Rajeswari				@			1
3	Dr. V Mohan		@					1
4	Dr. P Shanmugapriya			@				1
5	Dr. M Baritha Begum		@					1
6	Mr. S Hariprasath					@		1
7	Dr. K Malaisamy		@				@	2
8	Ms. P Sivagamasundhari				@		@	2
9	Ms.J.Eindhumathy			@		@		2
10	Mr. M Mahendran	@						1
11	Mr. S Sivakannu	@						1
12	Ms. S Kiruthiga					@		1
13	Ms. M Anthuvan Lydia						@	1
14	Mr.A.Kesavan			@	@			2
		3	3	3	3	3	3	18

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12

INTERNAL ASSESSMENT TEST III - III YEAR BE/B.TECH - EVEN SEM 2023-24

SEATING ARRANGEMENT

	ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
	JS CH-D	AIDS	A	III	248001-248017	14
	JS CH-B	ECE	A	III	242001-242006	6
	JS CH-C	ECE	A	III	242007-242024	18
	JS CH-D	ECE	A	III	242025-242043	18
	BD CH-A1	ECE	A	III	242044-242057	13
	BD CH-A2	ECE	A/B	III	242058-242059 242062,63,242127,128,129, 130, 131 242064-242066	12
	BD CH-B1	ECE	B	III	242067-242079	13
	BD CH-B2	ECE	B	III	242080-242091	12
	BD CH-C1	ECE	B	III	242092-242105	13
	BD CH-C2	ECE	B	III	242106-242117	12
	KS 109	ECE	B	III	242118-242126,132	10

HOD/ECE

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Saranathan College of Engineering
Tiruchirapalli.

III - ECE - 125

Internal Assessment Test - III				Date	25-04-2024	Marks	50
Course code	CS3491	Course Title	Artificial Intelligence and Machine Learning				
Batch No.		Duration		90 mins	Academic Year		2023-24 Even
Year	III	Semester		VI	Department		ECE-A&B

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q.No.	Questions	CO	Skills
1	Which are the three types of ensemble learning?	C310.5	R
2	What is difference between K means and Gaussian mixture?	C310.5	R
3	What is the difference between K-means and KNN?	C310.5	U
4	What are Gaussian mixture models How is expectation maximization used in it?	C310.5	U
5	How do you implement expectation maximization algorithm?	C310.5	R
6	What are the types of activation function?	C310.6	U
7	What is perceptron and its types?	C310.6	R
8	How is stochastic gradient descent same as gradient descent?	C310.6	U
9	Why is ReLU used in deep learning?	C310.6	R
10	How do you solve the vanishing gradient problem within a deep neural network?	C310.6	A

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits / Question

Q.No.	Questions	CO	Skills
11	Explain K-Mean algorithm with an example.	C310.5	A
	OR		
12	What is Gaussian process? And explain in detail of Gaussian parameter estimates with suitable examples.	C310.5	R
13	Draw the architecture of a single layer perceptron (SLP) and explain its operation. Mention its advantages and disadvantages.	C310.6	R
	OR		
14	Develop a Back propagation algorithm for Multilayer Feed forward neural network consising of one input layer, one hidden layer and output layer from first principles.	C310.6	U

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q.No.	Questions	CO	Skills
15	Explain K-NN algorithm with an example.	C310.5	A
	OR		
16	Explain about EM algorithm.	C310.5	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Prepared by Mr.P.B.Arunprasad & Ms.E.Shapna Rani

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Saranathan College of Engineering

Tiruchirappalli – 620012

III - ECE - 125

Internal Assessment Test - III		Date/ Session	24.4.2024/ FN	Marks	50
Course code	CEC354	Course Title	Software Defined Networks		
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year/	III	Semester/ Section	VI/A&B	Department	ECE

Part – A (20 Marks)

Answer allthe Questions (10x2=20Marks)

Q. No.	Questions	CO	Skills
1	What is meant by hardware virtualization?	C312PE5V84.4	R
2	Mention the 3 domains of operation of NFV framework.	C312PE5V84.4	U
3	List out NFV principles.	C312PE5V84.4	A
4	Draw the functional view of VNF	C312PE5V84.4	R
5	What do you mean by VNF scaling?	C312PE5V84.4	U
6	Define VLAN. List the different approaches that have been used for defining membership in VLAN.	C312PE5V84.5	U
7	What is VPN? What does a VPN do?	C312PE5V84.5	R
8	Write short notes on MPLS.	C312PE5V84.5	U
9	State the benefits of Network Virtualization.	C312PE5V84.5	R
10	Write short notes on Open Daylight's Virtual Tenant Network.	C312PE5V84.5	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain NFV reference architecture with its reference points in detail.	C312PE5V84.4	U
	OR		
12	Draw the mapping of SDN components with NFV architecture in detail.	C312PE5V84.4	A
13	Explain the general domain architecture and associated interfaces neat diagram.	C312PE5V84.4	R,U
	OR		
14	Explain the two categories of NFV use cases in detail.	C312PE5V84.4	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	With neat sketch explain the operation of Intel's SDI Architecture.	C312PE5V84.5	R,U
	OR		
16	Explain in detail about MPLS VPN concepts with neat sketch.	C312PE5V84.5	U,A

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Tiruchirapalli

III-ECE-B

Internal Assessment Test - III			Date/ Session	23/04/2024	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Enumerate the environmental benefits of biomass resources.	311OE15.4	U
2	Draw the aerobic digestion of organic waste by 3 stage biochemical processing techniques.	311OE15.4	U
3	Name the elements of biomass.	311OE15.4	R
4	What is pyrolysis process?	311OE15.4	R
5	What are primary and secondary fuel cells?	311OE15.5	U
6	Define geothermal gradient.	311OE15.5	R
7	Identify the environmental impact of geothermal energy extraction.	311OE15.5	U
8	What is meant by OTEC?	311OE15.6	R
9	Define tidal range.	311OE15.6	R
10	Why hydrogen is considered as a secondary energy source?	311OE15.6	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Sketch and describe the types of bio-mass gas generation plant. Mention 4 uses of the biogas produced.	311OE15.4	A
	Or		
12	With neat diagram explain (i) Fermentation (ii) Liquefaction processes	311OE15.4	A
13	Discuss the following: i. OTEC open cycle. ii. OTEC closed (Anderson) cycle	311OE15.5	A
	Or		
14	Explain the essential features of a hydrogen–oxygen cell. Draw a suitable diagram of this cell and give the reactions took place at the electrodes.	311OE15.5	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

15	With neat diagram explain any two types of gasifiers	311OE15.6	A
	Or		
16	What is geothermal energy? Explain the working principle of a geothermal power plant with the help of a neat sketch.	311OE15.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty Name: Dr.P.Ram Prakash, Mr.R.Sridhar

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Saranathan College of Engineering
Tiruchirapalli

III - ECE - 125

Internal Assessment Test - III		Date/Session	29.04.24/ FN	Marks	50
Course code	ET3491	Course Title	EMBEDDED SYSTEMS AND IOT DESIGN		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year	III	Semester/Section	06 / A & B	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Why preemptive scheduling is used in real time operating system?	C301.3	R
2	Name the two modes used in inter process communication.	C301.3	U
3	What is CAN bus? Draw the Data Frame Format for CAN bus	C301.3	R
4	Define Context Switching in RTOS	C301.3	R
5	Check whether the following set of processes are schedulable or not using RMS algorithm. P1 with Execution time of 3 ns and Period of 20 ns, P2 with Execution time of 2 ns and Period of 5 ns and P3 with Execution time of 2 ns and Period of 10 ns.	C301.3	U, C
6	Name the components of M2M system.	C301.4	R
7	List the applications of IOT.	C301.4	R
8	Give the comparison between IOT and M2M.	C301.4	R
9	What is Raspberry pi?.	C301.5	U
10	Name the interfaces used in Raspberry pi.	C301.5	A

Part – B - (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about Rate Monotonic Scheduling with an example. Compare between RMS and EDF algorithm for Scheduling.	C301.3	R, U
	(OR)		
12	Write in detail about the embedded concepts in the design of Video accelerator.	C301.3	R, U
13	With neat sketches, explain about M2M system architecture.	C301.4	R,U, AZ
	(OR)		
14	With neat diagram explain about the IOT Protocols.	C301.4	R, U

Part – C - (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	i.With neat diagram explain about Raspberry pi board.(6) ii.Write short notes on Raspberry pi interfaces.(4)	C301.5	R, U
	(OR)		
16	Explain domain specific IOT for the following cases i. Home automation. (5) ii. Smart cities. (5)	C301.5	U, A, AZ

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Tiruchirappalli – 620012

III · ECE - 125

Internal Assessment Test - III		Date/ Session	22.4.2024/FN	Marks	50
Course code	CEC349	Course Title	RFID System Design and Testing		
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year/	III	Semester/ Section	VI/A&B	Department	ECE

Part – A (20 Marks)

Answer all the Questions (10x2=20 Marks)

Q. No.	Questions	CO	Skills
1	Define directivity of an antenna.	C313PE6V36.5	R
2	List out the design challenges of RFID tag.	C313PE6V36.5	U
3	Define Dual radiating body configuration	C313PE6V36.5	R
4	What is meant by Highly Directive RFID Antenna?	C313PE6V36.5	R
5	Define the maximum radius of the first Fresnel zone.	C313PE6V36.5	U
6	Define Integrated Circuit Design.	C313PE6V36.5	U
7	List out the significance of Power Amplifier in IC design procedure	C313PE6V36.5	R
8	List the applications of MCU antenna design.	C313PE6V36.6	R
9	State the desired data rate of Microcontroller for Active RFID design.	C313PE6V36.6	R
10	Draw the System-level diagram of wireless transmitter	C313PE6V36.6	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about Passive RFID Antennas Using Serial Stubs for Passive tag.	C313PE6V36.5	U
	OR		
12	Explain RFID monopole design for a reader antenna.	C313PE6V36.5	A
13	Explain the differences between RFID monopole and dipole design for a reader antenna.	C313PE6V36.6	R,U,A
	OR		
14	Explain electronic passport and medical applications for RFID in detail	C313PE6V36.6	R,U

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain the RFID- Industrial automation in detail	C313PE6V36.5	R,U,A
	OR		
16	Explain the Link budget procedure of RFID antenna Tag.	C313PE6V36.5	U,A

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21 March 2024

Circular

First Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)B.E./B.Tech., Classes will commence from 1st April 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

First IA Test for First Year (2nd Sem.) _ April 2024

First Sem. 2nd

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
1st April 2024	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology
2nd April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
3rd April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
4th April 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
5th April 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
6th April 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
8th April 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

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Saranathan college of Engineering

Department of ECE

M.E. Communication System- II Semester 2024-25

Internal Assessment Test – I schedule

Date	Subject & Staff
01/04/2024	CU 4251- RF System Design Dr. Shanmugapriya P
02/04/2024	CU 4201 Microwave Integrated Circuits Dr. Malaisamy K
03/04/2024	CU 4202 Advanced wireless networks Mr. Mahendran M
04/04/2024	CU 4252 Machine Learning Dr. Mohan V
05/04/2024	EL 4071 Electromagnetic Interreference and Compatibility Dr. Baritha Begum M
08/04/2024	ML 4091 Multimedia Compression Techniques Mr. Sivakannu G

28/3/24

HoD/ECE

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 1 (I and II YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

28.03.2024

S.no	STAFF NAME	01.04.2024	02.04.2024	03.04.2024	04.04.2024	05.04.2024	06.04.2024	08.04.2024	
	DAY ORDER	III	IV	V	I	II	III	IV	
1	Dr. S.A Arunmozhi	@							1
2	Dr. S Rajeswari						@		1
3	Dr. V Mohan			@					1
4	Dr. P Shanmugapriya						@		1
5	Dr. M Baritha Begum				@				1
6	Mr. S Hariprasath					@			1
7	Dr. K Malaisamy					@			1
8	Ms. P Sivagamasundhari		@						1
9	Ms.J.Eindhumathy			@				@	2
10	Mr. M Mahendran				@				1
11	Mr. G Sivakannu	@						@	2
12	Ms. S Kiruthiga								0
13	Ms. M Anthuvan Lydia		@						1
14	Mr.A.Kesavan							@	1
		2	2	2	2	2	2	3	15

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12

INTERNAL ASSESSMENT TEST I -II/II YEAR BE/B.TECH - ODD SEM 2023-24

SEATING ARRANGEMENT

ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
RV 301	ECE	A	II	252001-252019	17
RV 302	ECE	A	II	252020-252034	15
RV 303	ECE	A	II	252035-252050	16
RV 304	ECE	A/B	II	252051-252064	15
RV 305	ECE	B	II	252065-252080	16
RV 306	ECE	B	II	252081-252096	16
RV 307	ECE	B	II	252097-252112	16
BD 202	ECE	B	II	252113-252124	11
RV 413	ECE	A	I	262001-262004	4
RV 414	ECE	A	I	262005-262020	16
RV 415	ECE	A	I	262021-262036	16
JS-CH-A	ECE	A	I	262037-262054	18
JS-CH-B	ECE	A/B	I	262055-262072	18
JS-CH-C	ECE	B	I	262073-262090	18
JS-CH-D	ECE	B	I	262092-262109	18
BD-CH-A1	ECE	B	I	262110-262122	13
BD-CH-A2	ECE	B	I	262123-262127	5

HOD/ECE

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test I					
Course code	GE 3451	Course Title	Environmental Sciences and Sustainability	Marks	50
Batch No.		Duration	Time : 1.30 hrs	Academic Year	2023-2024
Year/Branch	II year (common to all branches)	Semester/Section	IV/ A & B	Department	Chemistry

Part – A - (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define environmental engineering.	1	R
2	Environmental awareness is the need of the hour-comment.	1	A
3	Explain the concept of an ecosystem.	1	U
4	Write a note on red data book.	2	U
5	Give the criteria for endemism.	2	AZ
6	What are the factors affecting endangered species?	2	R
7	Highlight the issues happened in the society due to the poaching of wildlife.	2	A
8	What do you understand by species biodiversity? Give an example.	2	U
9	Differentiate between primary and secondary air pollutants with examples.	3	R
10	Define photochemical smog. Give its ill effect.	3	U

Part – B - (Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO	Skills
11.a	Briefly explain the role of producers, consumers and decomposers in an ecosystem. (5)	1	U
11.b	Discuss the process of ecological succession and the various stages involved in it. (5)	1	AZ
	OR		
12.	Discuss in detail about the various values of biodiversity. (10)	2	U
13	Write a detailed note on various measures to conserve biodiversity from human activities (10)	2	AZ
	OR		
14.	What are the major threats to the biodiversity? Explain it in detail. (10)	2	R
15.	Explain the flow of energy in an ecosystem. How the laws of thermodynamics is followed by the ecosystem. (10)	2	R
	OR		
16.	Discuss the major sources of air pollutants and their impact on human and health (10)	3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C), Skill need to be mentioned against each question

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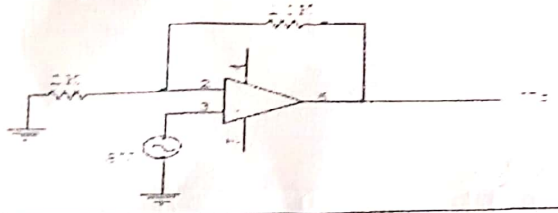
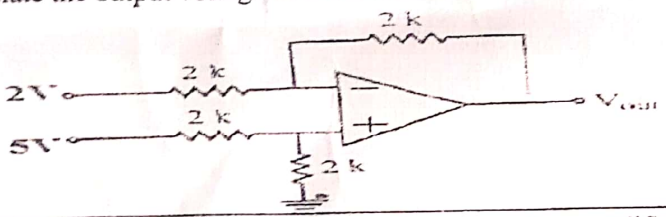
Saranathan College of Engineering
Tiruchirapalli

II - ECE - 122

Internal Assessment Test - I		Date/Session	4-04-2024 / FN	Marks	50
Course code	EC3451	Course Title	Linear Integrated Circuits		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year	II	Semester/Section	04 / A & B	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw the dc transfer characteristics of a BJT differential amplifier.	C212.1	AZ
2	Write down the characteristics of ideal operational amplifier?	C212.1	AZ
3	An operational amplifier has a slew rate of 4v/μs .Determine the maximum frequency of operation to produce distortion less output swing of 12V.	C212.1	A
4	A differential amplifier has a differential voltage gain of 2000 and a common mode gain of 0.2.Determine the CMRR in dB.	C212.1	E
5	When does the op-amp behave as a switch?	C212.1	U
6	What is V-I converter and give its types?	C212.2	U
7	Why integrators are preferred over differentiators in analog computers?	C212.2	AZ
8	For the op-amp shown in figure determine the voltage gain 	C212.2	AZ,E
9	Calculate the output voltage of the circuit. 	C212.2	AZ,E
10	What is gain of inverting amplifier and non-inverting amplifier?	C212.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	With neat diagram derive the AC performance close loop characteristics of Op-Amp to discuss on the stability.	C212.1	AZ
	(OR)		
12	Explain DC Characteristics of op amp	C212.1	U
13	List and explain the function of all basic building blocks of an Op amp	C212.1	R
	(OR)		
14	Derive voltage gain of inverting and non inverting amplifiers	C212.1	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	With a suitable circuit diagram, explain the operating principle of an instrumentation amplifier and derive its gain.	C212.2	U
	(OR)		
16	Derive the expression for differentiation computation using op-amp and explain with necessary diagrams.	C212.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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II-ECE-122

Saranathan College of Engineering

Tiruchirapalli.

Internal Assessment Test - I

Course code	EC3491	Course Title	Communication Systems	Marks	50
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year	II	Semester/ Section	IV /ECE A & B	Department	ECE

Date/ Session: 6.4.2024 FN

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define modulation.	C214.1	R
2	Compare bandwidth and power requirement in terms of carrier power P_c for AM,DSB-SC and SSB.	C214.1	R, U
3	Define: Hilbert Transform.	C214.1	U
4	A 400 W carrier is modulated to depth of 80%. Calculate the total power in the modulated wave.	C214.1	A
5	Why do you need modulation in communication systems?	C214.1	R, U
6	Apply the concepts of sensitivity and selectivity in AM receiver.	C214.1	A
7	Define Transmission Efficiency in AM.	C214.1	R, U
8	Define: Carson's rule.	C214.1	R, U
9	State sampling theorem.	C214.2	R
10	Write short notes on noises in amplitude modulation.	C214.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Derive the equation AM wave. Draw the representation of AM for various modulation indices with its advantages and disadvantages	C214.1	R,U,A
	Or		
12	Summarize and explain the phase shift method for generating SSB-SC signal.	C214.1	R,U,A
13	What is VSB Modulation? Derive the expression for VSB modulated signal and draw the spectrum of VSB modulated Signal along with its Modulator and Demodulator Blocks.	C214.1	R,U,A
	Or		
14	Explain in detail about Narrow Band FM and Wide Band FM. And also derive the necessary expressions.	C214.1	R,U,A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	a. Draw the block diagram of super heterodyne receiver and explain the operation of each blocks. b. The RF local oscillator and IF frequencies of an AM receiver are 800KHz, 1255 KHz and 455KHz respectively. Determine (i) Image frequency, (ii) IFRR for a Q of 120.	C214.1	R,A
	Or		
16	A baseband signal $10\cos(2\pi * 10^2 t)$ is used to modulate a carrier signal $30\cos(2\pi * 10^3 t)$. The value of load resistance used is 10Ω. Find the following: (i)Modulation Index, (ii)% of Modulation (iii)Frequency of Sidebands and its Amplitude (iv)Bandwidth of the Modulated Signal (v)Carrier Power and Total Power Required	C214.1	A

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Saranathan College of Engineering

Tiruchirappalli – 620012

II-ECE-122

Internal Assessment Test - I

Course code	EC 3401	Course Title	Networks and Security	Marks	50
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year/	II	Semester/ Section	IV/A &B	Department	ECE

Part – A (20 Marks)

(10x2=20 Marks)

Q. No.	Answer all the Questions Questions	CO	Skills
1	In the Standard Ethernet, transmission rate of 10 Mbps is sent through the 2500 m length of the medium and the size of the frame is 512 bits. The propagation speed of a signal in a cable is 2×10^8 m/s. Calculate efficiency.	C311.1	E
2	Define the type of the following destination addresses: a. 4A:30:10:21:10:1A b. 47:20:1B:2E:08:EE c. FF:FF:FF:FF:FF:FF	C311.1	U
3	Define topology and list its types.	C311.1	R
4	Consider that the data word to be transmitted is 100100 and key is 1101. Determine parity bits for the given data.	C311.1	E
5	Categorize the necessary criteria for an effective and efficient network.	C311.1	U
6	Draw the Ethernet frame format.	C311.1	R
7	List out the different types of network.	C311.1	R
8	What is bit stuffing and mention its applications.	C311.1	U
9	Define protocol with its parts.	C311.1	R
10	Define piggybacking	C311.1	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the different frames and configuration of HDLC protocol.	C311.1	U
	OR		
12	Describe the working principle of stop and wait and sliding window mechanism with an example	C311.1	A
13	Discuss about CSMA/CD and explain its working principle	C311.1	R,U
	OR		
14	Explain any two error detection and correction methods in detail.	C311.1	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain in details about ISO-OSI model	C311.1	R,U
	OR		
16	Explain in detail about IEEE 802.3 and its types with frame formats.	C311.2	R,U

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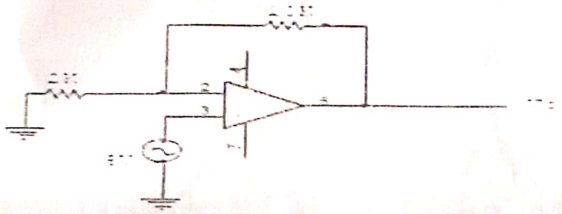
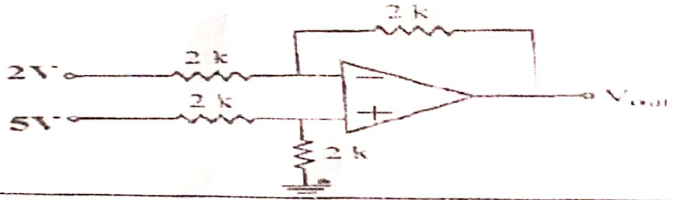
Saranathan College of Engineering
Tiruchirapalli

II - ECE - 122

Internal Assessment Test - I		Date/Session	4-04-2024 / FN	Marks	50
Course code	EC3451	Course Title	Linear Integrated Circuits		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year	II	Semester/Section	04 A & B	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw the dc transfer characteristics of a BJT differential amplifier.	C212.1	AZ
2	Write down the characteristics of ideal operational amplifier?	C212.1	AZ
3	An operational amplifier has a slew rate of 4v/μs .Determine the maximum frequency of operation to produce distortion less output swing of 12V.	C212.1	A
4	A differential amplifier has a differential voltage gain of 2000 and a common mode gain of 0.2.Determine the CMRR in dB.	C212.1	E
5	When does the op-amp behave as a switch?	C212.1	U
6	What is V-I converter and give its types?	C212.2	U
7	Why integrators are preferred over differentiators in analog computers?	C212.2	AZ
8	For the op-amp shown in figure determine the voltage gain 	C212.2	AZ,E
9	Calculate the output voltage of the circuit. 	C212.2	AZ,E
10	What is gain of inverting amplifier and non-inverting amplifier?	C212.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	With neat diagram derive the AC performance close loop characteristics of Op-Amp to discuss on the stability.	C212.1	AZ
	(OR)		
12	Explain DC Characteristics of op amp	C212.1	U
13	List and explain the function of all basic building blocks of an Op amp	C212.1	R
	(OR)		
14	Derive voltage gain of inverting and non inverting amplifiers	C212.1	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	With a suitable circuit diagram, explain the operating principle of an instrumentation amplifier and derive its gain.	C212.2	U
	(OR)		
16	Derive the expression for differentiation computation using op-amp and explain with necessary diagrams.	C212.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I					
Course code	EC 3452	Course Title	Electromagnetic Fields	Marks	50
Batch No.		Duration	90 mins	Academic Year	2023-2024
Year	II	Sem/ Sec	IV Sem A &B Sec	Department	ECE

Date/ Session: 03-04-2024 FN

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No.	Questions	CO	Skills
1	Determine the Gradient of the scalar field $F=10r\sin^2\theta\cos\phi$	C212.1	E
2	Determine the divergence of the field $\bar{F} = (2xy - y^2)\bar{a}_x + (x^2z - 2xy)\bar{a}_y - x^2y\bar{a}_z$ at (2,3,-1) and hence state the nature of the given field.	C212.1	A, E
3	State Stokes theorem.	C212.1	R,U
4	The position of a point in spherical coordinates is (4,-65°, 330 °).Specify its location in Cartesian coordinates.	C212.1	A, E
5	State Coulomb's law.	C212.1	R,U
6	A uniform line charge with ρ_L =10 μC/m lies along x-axis. Find $\bar{E}$ at the point P(5,2,3)	C212.2	A, E
7	Find the total charge enclosed by a cube of 2m side, centered at the origin with the edges parallel to the axes when $\bar{D}$ over the cube is $5x^3\bar{a}_x\ C/m^3$.	C212.2	A, E
8	Two point charges –1nC and 3nC are located at (0, 0, 0), and (1, 0, 0) respectively. Find the force between the charges and Electric Field Intensity of the system.	C212.2	A, E
9	A point charge 2nC is located at the origin. What is the value of potential at P(1,0,0)m?	C212.2	A, E
10	Determine the value of capacitance between 2 square plates having cross sectional area 1sq.cm separated by 1cm placed in a liquid whose dielectric constant is 6.	C212.2	A, E

Part – B (Answer all the questions 3 x 10 = 20marks)

Q.No	Questions	CO	Skills
11	a)Evaluate $\oint_S (3\sin\theta\,\bar{a}_\theta)\cdot d\bar{S}$ over the surface of a sphere of a radius 5 centered at the origin. b) For Vector function $\bar{A} = \bar{a}_r r^2 + \bar{a}_z 2z$, verify the divergence theorem for the circular cylindrical region enclosed by r=5,z=0, and z=4.	C212.1	A,E, Az
	Or		
12	a) Given a scalar function $V = \left(\sin\frac{\pi}{2}x\right)\left(\sin\frac{\pi}{3}y\right)e^{-z}$ determine a) the magnitude and the direction of the maximum rate of increase of V at the point P(1,2,3). b)Given that $\bar{F} = (x^2 + y^2)\bar{a}_x - 2xy\bar{a}_y$, verify Stoke's theorem for a rectangular path bounded by the lines x=±a, y=0,y=b.	C212.1	A,E, Az
13	a)Use Gauss's law to determine Electric field intensity due to long, straight, line charge of a uniform density ρ_LC/m in air at a point P lies at a distance of 'r' from the origin. b) Derive the expression for potential due to an electric dipole at any point P. Also find electric field intensity at the same point.	C212.2	E, A, Az
	Or		
14	(a) Derive an expression for the D and E due to Coaxial cable. (b) Determine the potential difference between the points A and B which are at a distance of 0.5m and 0.1m respectively from a negative charge of 20×10^{-10}coulomb.	C212.2	E,C,A

Part – C(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	(a)Derive the capacitance of a parallel plate capacitor. (b)A Potential field is given as V=100exp(-5x) sin3y cos4z V. Let point P(0.1,π/12,π/24) be located at a conductor free space boundary. At point P, find the magnitude of a) V, b) $\bar{E}$, c) E_{tan}, d)E_{nor}, e) $\bar{D}$, f) D_{nor} and g)ρ_s	C212.2	E,A, Az
	Or		
16	Derive the boundary conditions of the normal and tangential components of electric field at the interface of dielectric and free space.	C212.2	E,A, Az

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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I-ECE-126

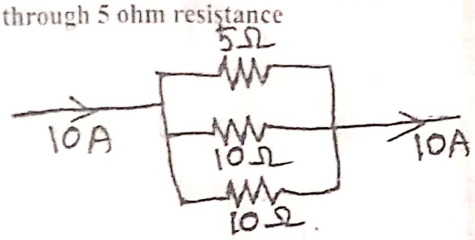
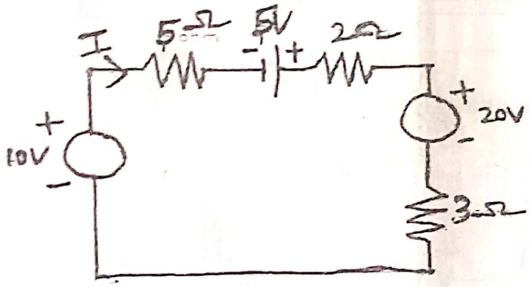
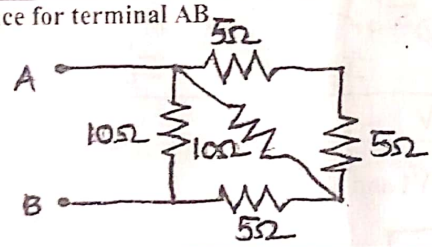
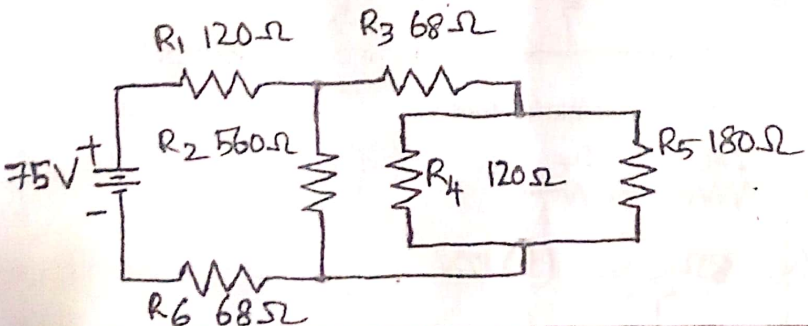
Saranathan College of Engineering

Tiruchirapalli

INTERNAL ASSESSMENT TEST-I		Date/ Session	05.04.2024/ FN	Marks	50
Course code	EC3251	Course Title	CIRCUIT ANALYSIS		
Batch No.		Duration	90 mins	Academic Year	2023-24 Even
Year	I	Semester/ Section	II/A & B	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	If a 10V voltage source has an internal resistance of 50 ohm find the current that can be supplied by the source.	C114.1	AZ.E
2	State KVL and KCL	C114.1	R
3	Find current through 5 ohm resistance 	C114.1	E
4	Find current I in the circuit 	C114.1	E
5	Find equivalent resistance for terminal AB 	C114.1	E
6	What is superposition theorem?	C114.2	U
7	How do you convert Thevenin circuit into Norton circuit?	C114.2	R
8	Find total current I_T 	C114.2	E
	Norton's theorem.	C114.2	R

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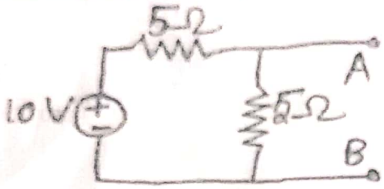
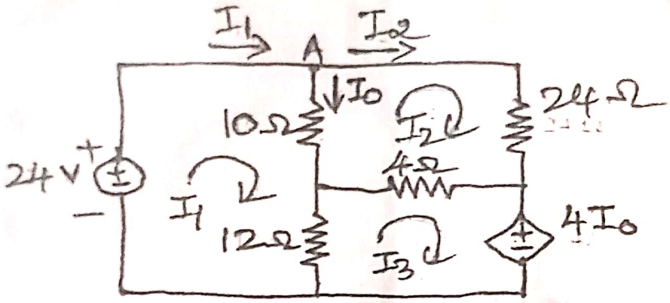
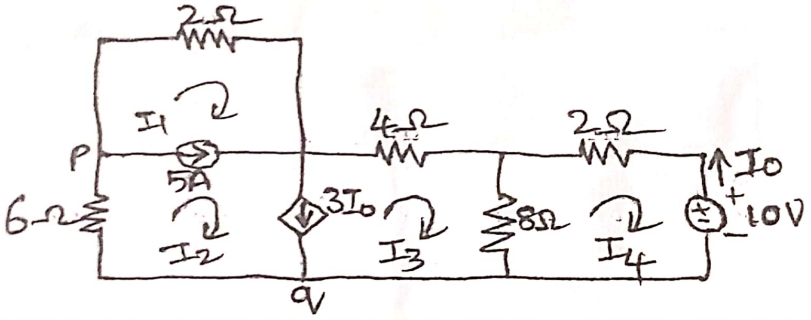
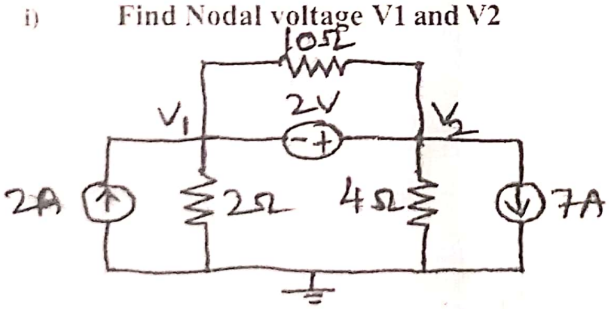
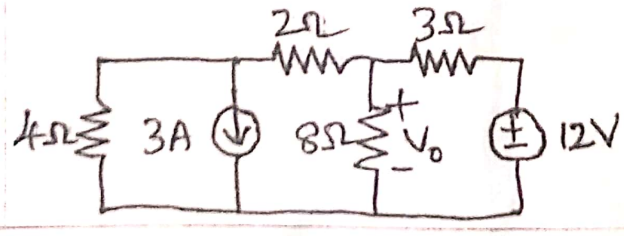
10	Find the Thevenin equivalent circuit for terminal AB 	C114.2	E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Using Mesh Analysis Find current I_o 	C114.1	AZ,E
	OR		
12	Find i_1 to i_4 using Mesh analysis 	C114.1	AZ,E
13	i) Find Nodal voltage V1 and V2  ii) Using source transformation find V_o 	C114.1	AZ,E

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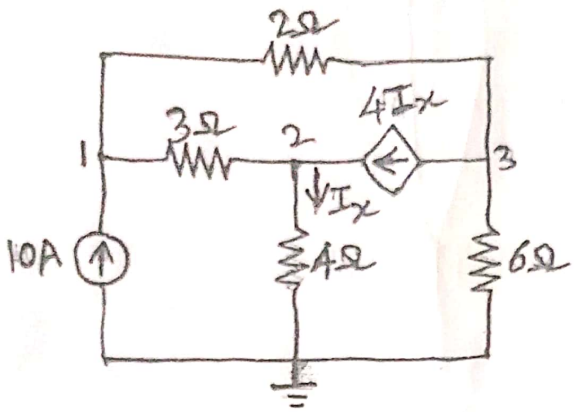
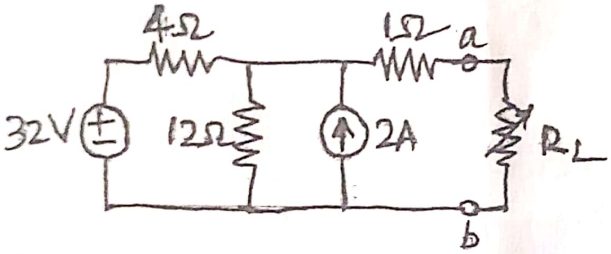
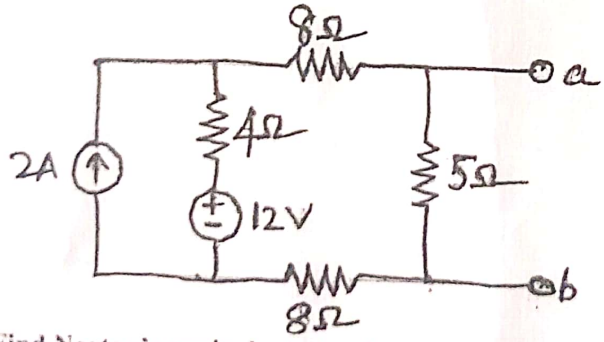
	OR		
14	 Find Node voltage at Node 1,2,3	C114.1	AZ,E
Q. No.	Part – C (Answer all the questions 1 x 10 = 10marks) Questions	CO	Skills
15	 Find the current through R_L using thevenin's theorem. case 1 if R_L = 6 ohm , case 2 if R_L = 16 ohm and case 3 if R_L =36 ohm	C114.2	AZ,E
	OR		
16	 Find Norton's equivalent circuit across ab terminal	C114.2	AZ,E

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I- ECE/CSBS/AIML Batch-I - 250
9.45 to 10.45 Am.

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I

Course code	GE3251	Course Title	ENGINEERING GRAPHICS	Marks	50
Batch No.		Duration	90 min	Academic Year	2023 - 2024
Year/	I	Semester/Sec	II	Department	ECE A & B, CSBS & AIML

Date/ Session: 08.04.2024

Q. No.	Questions	CO	Skills
1.	A circle of 40mm diameter rolls on a straight line. A point on the circumference of the circle is in contact with the line in the beginning and after one complete revolution. Draw the cycloidal path of the point. Draw tangent and normal at any point on the curve. (15 marks)	C115.1	R & U
	(OR)		
2.	A coil is unwound from a drum of 30mm diameter. Draw the locus of the free end of the coil for unwinding through an angle of 360°. Also draw a normal and tangent at 25mm from the base line on the curve. (15 marks)	C115.1	R & U
3.	Construct a curve when the distance from the focus to the (i) directrix = 40mm (ii) eccentricity = 3/2. Draw tangent and normal at any point on the curve. (15 marks)	C115.1	R & U
	(OR)		
4.	A fixed point 'F' is 6cm from a fixed straight line. Draw the locus of a point 'P' moving in such a way that its distance from the fixed straight line is 2/3 times its distance from F. Name the curve. Draw the tangent and normal at a point 5cm from the directrix. (15 marks)	C115.1	R & U
5.	The distance between the projectors of two points C and D is 70mm. C is 10mm above HP and 15mm in front of VP. D is 50mm above HP and 40mm in front of VP. Find the true length of CD by rotating line method. Find true inclinations of CD with VP and HP. Locate its traces. (20 marks)	C115.2	R & U
	(OR)		
6.	The midpoint of a straight line EF 90mm long is 60mm above HP and 50mm in front of VP. It is inclined at 30° to HP and 45° to VP. Draw its projections.	C115.2	R & U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI

Internal Assessment Test - I		Date/ Session	2.4.'24 (FN)	Marks	
Course code	HS3252	Course Title	PROFESSIONAL ENGLISH - II		
Batch No.		Duration	1hr 30min	Academic Year	2023- 2024
Year	I	Semester/ Section	II/ All Sections	Department	ENGLISH

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	QUESTIONS		CO	Skills
1	**Fill in the blanks with appropriate tense form** 1.In recent decades, the efficiency of the United Nations _____ (question) by a growing number of countries. 2. We _____ (have) no problems whatsoever with the dam since it _____ forty years ago. (construct) 3. He _____ this event since last Monday (organize) 4. He _____ (pursue) his Under graduation now.	(2)	CO.01	U,R
2	**Rephrase the following sentences with the appropriate tense form.** 1.By this time next year, the project had been completed. 2. When I reach the theatre, the movie has started already. 3. I received the cash tomorrow. 4. They has quoting this budget since the commencement of bidding.	(2)	CO.01	U,R
3	**Fill in the blanks with the most appropriate prepositional phrase** 1.I see a bird perching _____. 2.It should be strictly instigated that the poaching should be avoided _____ 3. He works relentlessly _____. 4. He proves his calibre_____.	(2)	CO.01	U,R
4	**Underline the prepositional phrases in the sentence.** 1.He is so adamant in his behavior. 2.My friend sits beside me . 3.I have sent a consignment through the courier. 4.A deep dive analysis is required to evaluate the system.	(2)	CO.01	U,R
5	**Fill in the blanks with the infinitive or gerund form of the verb given in brackets, depending on the context.** 1.He attempted _____ (create) a new product from all the waste materials that had accumulated from his previous projects. 2.The smart phones can be used for _____ (multitask) . 3. It is high time _____ (participate) in events. 4. Everybody strives hard_____ (secure) good marks.	(2)	CO.01	U,A,C
6	**Convert the following gerund into infinitive and vice versa.** 1.I like partying with my friends. 2. Festivals are a culture to worship God. 3.Listening is Understanding.. 4. Galloping a horse is so difficult.	(2)	CO.01	U

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7	**Identify and elucidate the errors in the sentence and rewrite it** (2) 1.One of my friends are lawyers. 2.Everybody has to owe the responsibilities. 3. He live in there friend's house 4.I am going to speak about Recession.	CO.01	U,A
8	**Identify and elucidate the errors in the sentence and rewrite it** (2) 1.Two and two makes four. 2.He is a guy who I know pretty well. 3.There is a gap among the two bridges. 4.Inspite of performing well he is not acknowledged	CO.01	U,A
9	**Frame the right conditional statement to complete the sentence** (2) 1.If you pursue higher education,_____. 2._____, you would have been happy. 3._____, you will not get good scores. 4. If you realized your mistakes, _____.	CO.01	U,A
10	**Use the correct If conditional statements given in the brackets.** (2) 1If you contribute for the good cause, you_____ (acknowledge) by everyone.. 2. If you ____ (ride) the vehicle swiftly, you___(meet) with an accident. 3. If you _____ (achieve) in your field, you_____(appreciate) by the whole world. 4. Unless you _____ (acquire) knowledge, you_____ (prosper) well.	CC .01	U,R

PART –B

(Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO	Skills
11	a) **Assume yourself as a customer who bought the Blue star AC and none turned in for installation. Write a letter to the Customer Care complaining about the poor service.** (5) b) **Also, send an email as a response to the above mentioned complaint** (5)	CO 02	U,AZ, E
12	**As a social activist you would like to control the stray dog menace in your locality. Write a letter to the Editor of a reputed newspaper asking him/her to publish the same.** (10)	CO.03	U, C
13	WRITE A COMPARE AND CONTRAST ESSAY ON THE FOLLOWING TOPIC (10) AI BASED CLASSES VS CONVENTIONAL CLASSES	CO.03	U,C, A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

Tiruchirapalli -12

Internal Assessment Test – I			Date/Session	03.04.2024 / FN	Marks	50
Course code	MA3251	Course Title	Statistics and Numerical Methods			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/Section	II / A & B	Department	ALL	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO's	Skills
1	Mention the order and criterion for the convergence of Newton-Raphson method.	CO3	R
2	Write down the condition for convergence of fixed point iteration method for $f(x) = 0$.	CO3	R
3	Solve the equations $x + y = 2, 2x + 3y = 5$ by Gauss Elimination method.	CO3	E
4	Compare Gauss Elimination with Gauss Jordan method.	CO3	U
5	What is the difference between Gauss Jacobi's method and Gauss seidel method?	CO4	R
6	What kind of an eigen value and eigen vector of a matrix would be obtained by Power method?	CO4	R
7	Using Jacobi method, find the eigen values and the corresponding eigen vectors of the matrix $A = \begin{bmatrix} 2 & 3 \\ 3 & 2 \end{bmatrix}$.	CO4	E
8	What is inverse interpolation? and State Lagrange's inverse interpolation formula.	CO5	U
9	Find the divided difference table for the following data: x : 2 5 10 y : 5 29 109	CO5	U
10	Find the third divided differences of $f(x) = x^3 + x + 2$ for the arguments 1, 3, 6, 11.	CO5	U

Part – B

(Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO's	Skills
11	(a) Find a root of $\cos x = 3x - 1$, correct to 4 decimal places using fixed point iteration method. (b) Apply Gauss Jordon method to solve $x - y + z = 1,$ $-3x + 2y - 3z = -6,$ $2x - 5y + 4z = 5.$	CO3	A
	(Or)		

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12	(a) Using Newton-Raphson method, find a root of the equation $e^x - x^3 - cos25x = 0$, nearer to x = 4.5 and correct to three decimal places. (b) Solve the following system of equations by Gauss-Elimination method: $x + 4y - z = -5$, $x + y - 6z = -12$, $3x - y - z = 4$	CO3	A
13	Using Power method, find all the eigen values of the matrix $\begin{bmatrix} 1 & 6 & 1 \\ 1 & 2 & 0 \\ 0 & 0 & 3 \end{bmatrix}$.	CO4	E
	(Or)		
14	Solve the equations by Gauss Jacobi method & Gauss-Seidel method: $27x + 6y - z = 85$ $6x + 15y + 2z = 72$ $x + y + 54z = 110.$	CO4	E
15	Using Lagrange's interpolation formula, find the polynomial $f(x)$ for the following data and hence find $f(5)$. x: 4 6 8 10 y: 1 3 8 16	CO5	A
	(Or)		
16	Use Lagrange's interpolation formula to find the polynomial $f(x)$ and hence find $f(10)$ from the following data: x : 5 6 9 11 $f(x)$: 12 13 14 16	CO5	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

*****ALL THE BEST*****

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Saranathan College of Engineering

Tiruchirapalli-12

I-ECE-126

Internal Assessment Test - I		Date/Session	04/04/2024/FN	Marks	50
Coursecode	PH3254	CourseTitle	Physics for Electronics Engineering		
BatchNo.		Duration	1 ½ Hours	AcademicYear	2023 -2024
Year	I	Sem/Branch	II / ECE	Department	ECE

Part–A

Answer all the questions (10x2 = 20marks)

Q.No.	Questions	CO	Skills
1.	Define unit cell.	C111.1	R
2.	What is Bravais lattice?	C111.1	U
3.	Define primitive cell and non-primitive unit cell	C111.1	R
4.	What is the relation between lattice constant 'a' and density 'ρ' of the crystal?	C111.1	U
5.	What are the steps to find the Miller indices of a crystallographic Plane?	C111.1	U
6.	Sketch the planes with Miller indices (100) and (111) for a cubic system.	C111.1	A
7.	What is drift velocity?	C111.2	U
8.	Define Mobility of electron.	C111.2	R
9.	Define the term Relaxation time.	C111.2	R
10.	Write any four postulates of Classical free electron theory.	C111.2	U

Part–B

Answer all the questions (3x10 = 30 marks)

Q.No.	Questions	CO	Skills
11.a.	Determine the coordination number, atomic radius and packing factor for BCC and FCC structures (5+5)	C111.1	A
	Or		
11.b	(i) Derive the expression for inter planar spacing 'd' between (hkl) planes of a cubic structure (6) (ii) Compare the intercepts and interfacial angles of seven types of crystal system. (4)	C111.1	A
12.a	Explain in detail about the Diamond structure. (10)	C111.1	U
	Or		
12.b	Write a note on point and line imperfection in a crystal. (10)	C111.1	U
13.a	Define electrical conductivity and derive an expression for electrical conductivity of a metal. (10)	C111.2	A
	Or		
13.b	Derive an expression for thermal conductivity of a metal . (10)	C111.2	A

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Saranathan College of Engineering
Tiruchirapalli

I-ECE-126

Internal Assessment – I			Date/Session	06.03.24/FN	Marks	50
Course code	BE3254	Course Title	ELECTRICAL AND INSTRUMENTATION ENGG.			
Batch No.		Duration	90 mins	Academic Year	2024- 2025	
Year	I	Semester/Section	II /A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Voltage regulation and Efficiency of transformer.	112.1	R,U
2	Draw the exact equivalent circuit of a transformer.	112.1	AZ
3	Explain ideal transformer and draw its phasor diagram	112.1	R
4	What are the various losses occurring in a transformer?	112.1	R,U
5	Draw the connection diagram of Star-Delta and Delta-Star type 3 phase transformer.	112.1	R,U
6	A 220V / 110 V, 50 Hz Ideal transformer has 166 turns in its primary. What is the peak value of flux?	112.1	AZ
7	What is harmonics? How can it be minimized?	112.1	AZ
8	Describe the working principle of operation of a DC generator	112.2	U
9	Give the function of commutator in a DC machine	112.2	U
10	Define back emf?	112.2	A

Part – B

Q. No.	Questions	CO	Skills
11	What is meant by auto transformer? Derive the expression for saving of copper and mention its application	112.1	A
	Or		
12	Draw a general schematic of single phase transformer .Describe its working principle and deduce the expression for EMF in secondary winding.	112.1	U
13	i) Draw and explain the phasor diagram of Practical transformer on no load.(6) ii) Define Per Unit system and deduce the expression for per unit model of a transformer.(4)	112.1	AZ
	Or		
14	A 2000V / 200V transformer has primary resistance and reactance of 2 Ω and 4 Ω. The corresponding secondary values are 0.025 Ω and 0.04 Ω. Determine i) Equivalent resistance and reactance of primary referred to secondary, ii) Total resistance and reactance referred to secondary, iii) Equivalent resistance and reactance of secondary referred to primary, iv) Total resistance and reactance referred to primary.	112.1	AZ
	Part-C		
15	Draw and explain the construction and principle of operation of DC generator.	112.1	U
	Or		
16.	The armature of a 4-pole wave wound D.C. shunt generator has 144 slots and 3 conductors per slot. If the armature in rotated with a speed of 1200 rpm in a field of 0.025 weber per pole, Estimate the emf generated.	112.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty In-charge- Mr.S.Ramprasath AP/EEE & Dr.R.Vijay AP/EEE.

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I year All

சாரநாதன் பொறியியல் கல்லூரி, திருச்சிராப்பள்ளி

Saranathan college of Engineering

பி.இ., பி.டெக்., – ஏப்ரல் – 2024

B.E/BTECH –APRIL-2024

இரண்டாம் பருவம்

INTERNAL ASSESMENT 1

GE3252– தமிழரும் தொழில் நுட்பமும்

GE3252-TAMILS AND TECHNOLOGY

அனைத்துத் துறைகளுக்கும் பொதுவானது

(COMMOM TO ALL BRANCHES)

(மாணவர்களின் கவனத்திற்கு – தமிழை ஒரு பாடமாக பத்தாம் வகுப்பு வரை படித்தவர்கள் இத்தேர்வை தமிழில் மட்டும் எழுத வேண்டும்)

காலம் : 1.30 மணி

TIME: 1.30 HRS

மதிப்பெண் : 50

MARKS: 50

Date:01/04/2024

அனைத்து வினாக்களுக்கும் விடையளிக்கவும்

பிரிவு-அ (10 x 2 = 20 மதிப்பெண்கள்)

PART-A

Answer all the questions

1. நெசவு பெண்டிர் (அ) பருத்தி பெண்டிர் விளக்குக.
   Define Weaving women or cotton women.
2. நெசவுத் தொழில் என்றால் என்ன?
   What is called textile industry?
3. துகில் – கலிங்கம் பொருள் தருக.
   what is meant by dhukil-kalingam?
4. பருத்திப் பெண்டிர் பணிகள் யாவை?
   List out the works of cotton women.
5. திருவைகளின் வகைகள் யாவை?
   what are the types of thiruvaikkal?
6. முதுமக்கள் தாழி என்றால் என்ன?
   Define burial Urn.
7. கட்டுமான கலையின் பொதுவான உறுப்புகள் யாவை?
   what are the general components of construction work?
8. கற்றளி என்றால் என்ன?
   Explain katrali(temple built of stone).
9. நடுகல் (அ) வீரக்கற்கள் என்றால் என்ன?
   Describe MIddle stone.
10. எழினிகள் வகைகள் யாவை?
    List out the types of Ezhini (Screen).

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பிரிவு – ஆ (3 X 10 = 30 மதிப்பெண்கள்)

II – விரிவான விடையளி

Part-B

Write in Detail

11. ஆடை வரலாறு வரையறு,
Explain the history of dressing style

(அல்லது)

பருத்திப் பெண்டிர் பணிகளை விளக்குக.
Elaborate the works of cotton women

12. பானைத் தொழிலின் பல நிலைகள்
Bring out the stage of pottery.

(அல்லது)

மண்பானை உருவாக்கும் செயல் முறைகள்
Describe the process involved in earthen pot.

13. பாண்டங்களில் கீறல் குறியீடுகள் விளக்குக.
Illustrate the marks on vessels

(அல்லது)

14. வீட்டின் மனைகளின் வகைப்பாடு.
classify the types of house spots

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21 March 2024

Circular

First Internal Assessment Test for First Year (2nd Sem.) & Second Year (4thSem.)B.E./B.Tech., Classes will commence from 1st April 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rdHour

11.50 a.m. – 12.45p.m. – 4thHour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

First IA Test for Second Year (4th Sem.) _ April 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
1st April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	CE3401 - Applied Hydraulics Engineering	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
2nd April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3451 - Introduction to Operating System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3404 - Soil Mechanics	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
3rd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3492 - Data Base Management System	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4thApril 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3452 - Theory of Computation	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3402 - Strength of Materials	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	CS3491 - Artificial Intelligence and Mechine Learning	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3403 - Concrete Technology	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
8th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines -II	IT3401 - Web Essentials	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	GE3451 - Environmental Sciences and Sustainability	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

SECOND IA Test for Second Year (4th Sem.) _ April / May 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
29th April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
30th April 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	CS3492 - Data Base Management System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
2nd May 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4th May 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3491 - Artificial Intelligence and Mechine Learning	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th May 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	IT3401 - Web Essentials	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
7th May 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3451 - Introduction to Operating System	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 2 (II , I YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

28.04.2024

S.no	STAFF NAME	29.04.2024	30.04.2024	02.05.2024	03.05.2024	04.05.2024	06.05.2024	07.05.2024	
	DAY ORDER	V	I	II	III	IV	V	I	
1	Dr. S.A Arunmozhi					@			1
2	Dr. S Rajeswari	@							1
3	Dr. V Mohan			@					1
4	Dr. P Shanmugapriya				@				1
5	Dr. M Baritha Begum	@							1
6	Mr. S Hariprasath						@		1
7	Dr. K Malaisamy			@					1
8	Ms. P Sivagamasundhari					@			1
9	Ms.J.Eindhumathy						@		1
10	Mr. M Mahendran				@				1
11	Mr. G Sivakannu		@						1
12	Ms. S Kiruthiga							@	1
13	Ms. M Anthuvan Lydia							@	1
14	Mr.A.Kesavan		@						1
		2	2	2	2	2	2	2	14

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12

IAT 2 Seating arrangement

RV 301	ECE	A	II	252001-252019	17
RV 302	ECE	A	II	252020-252034	15
RV 303	ECE	A	II	252035-252050	16
RV 304	ECE	A/B	II	252051-252064	15
RV 305	ECE	B	II	252065-252080	16
RV 306	ECE	B	II	252081-252096	16
RV 307	ECE	B	II	252097-252112	16
BD 202	ECE	B	II	252113-252124	11
RV 413	ECE	A	I	262001-262004	4
RV 414	ECE	A	I	262005-262020	16
RV 415	ECE	A	I	262021-262036	16
JS-CH-A	ECE	A	I	262037-262054	18
JS-CH-B	ECE	A/B	I	262055-262072	18
JS-CH-C	ECE	B	I	262073-262090	18
JS-CH-D	ECE	B	I	262092-262109	18
BD-CH-A1	ECE	B	I	262110-262122	13
BD-CH-A2	ECE	B	I	262123-262127	5

HOD/ECE

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Saranathan College of Engineering

Tiruchirapalli

II - years All - 760

Internal Assessment Test - II			Date/ Session	29/04/24	Marks	50
Course code	GE3451	Course Title	Environmental Science & sustainability			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section	IV	Department	Common to all	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Mention the sources responsible for water pollution	3	U
2	What are point sources and non-point sources?	3	R
3	Write any four problems caused by high saline soils.	3	U
4	When a sound does cause noise pollution?	3	A
5	What are the control sources of noise pollution?	3	R
6	Give a brief description about the e-waste management.	3	U
7	What are the objectives of forest act?	3	R
8	Mention a few drawbacks of pollution related act.	3	R
9	Distinguish between renewable and non-renewable energy sources.	4	U
10	List down advantages and disadvantages of GTE	4	A

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions		CO	Skills
11	Explain the causes, effects and preventive measures of soil pollution.	(10)	3	U
	Or			
12	Discuss the disposal methods involved in solid waste management.	(10)	3	R
13	Explain the steps involved in managing hazardous waste.	(10)	3	A
	Or			
14 a	With a suitable case study explain on the occupational health and safety management system.	(6)	3	U
14 b	Discuss environmental protection act.	(4)	3	U
15	Enumerate on the energy harnessing based on the ocean energy resources and tidal energy conversion and its applications.	(10)	4	A
	Or			
16	Discuss in a suitable manner about the origin and power plants of geothermal energy.	(10)	4	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering
Tiruchirapalli

II-ECE-122

Internal Assessment Test - II			Date/Session	30.04.2024	Marks	50
Course code	EC3451	Course Title	Linear Integrated Circuits			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/Section	04 / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Mention two linear and two non- linear operations performed by an operational amplifier?	C212.2	R
2	Why rectifier using opamp is called precision rectifier?	C212.2	E
3	What are the advantages of active filters?	C212.2	U
4	How is the current characteristic of a PN junction employed in a Log amplifier?	C212.2	E
5	Design a second order Butterworth active low pass filter for a cut-off frequency of 1KHz, C=0.1μF and R_i=10k ohms. Find R and R_f.	C212.2	C
6	What is a four-quadrant multiplier?	C212.3	U
7	Draw the block diagram of a multiplier using log and antilog amplifiers.	C212.3	AZ
8	Determine the change in dc control voltage Vc during lock, if input signal frequency fs = 20 kHz, the free running frequency fo is 21 kHz and the V/F transfer coefficient of VCO is 4 kHz/V	C212.3	R
9	VCO is called as V-F converter why?	C212.3	E
10	Draw the basic block diagram of PLL?	C212.3	AZ

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	i) Briefly explain the working principle of Schmitt trigger. (5m) ii) Design a wide band pass filter having f_L=600 Hz f_H=2kHz and pass band gain of 5. Find the value of Q of the filter. (5m)	C212.2	A
	(OR)		
12	Discuss briefly about clippers and clampers	C212.2	U
13	Explain log amplifier with suitable diagram	C212.3	R
	(OR)		
14	Determine the expressions for lock in range and capture range for PLL.	C212.3	AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	With neat simplified internal diagram explain the working principle of Gilbert's multiplier cell.	C212.3	U
	(OR)		
16	Explain any three applications of multiplier IC	C212.3	U

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Saranathan College of Engineering

Tiruchirappalli – 620012

II - ECE - 122

2.5.24

Internal Assessment Test - II			Date/ Session	~~2024~~/FN	Marks	50
Course code	EC3401	Course Title	Networks and Security			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN	
Year	II	Semester/ Section	IV/A &B	Department	ECE	

Part – A (20 Marks)

Answer all the Questions **(10x2=20 Marks)**

Q. No.	Questions	CO	Skills
1	Given a host address 192.168.180.94/27. Calculate the network address and host range.	C311.2	E
2	Differentiate between Subnetting and supernetting.	C311.2	U
3	Find the class of the following classful IP addresses: a.) 130.34.54.12 b.) 200.34.2.1 c.) 245.34.2.8	C311.2	E
4	An IPv4 packet has arrived with the first 8 bits as (01000010)2 The receiver discards the packet. Why?	C311.2	E
5	List out the performance metrics of network layer.	C311.2	R
6	A classless address is given as 167.199.170.82/27. Find First and Last Address of a block.	C311.2	R
7	Show the original form of the following IPv6 addresses: 0:23::0	C311.2	U
8	Define congestion.	C311.3	R
9	Differentiate between TCP and UDP.	C311.3	U
10	List out the three phases of connection oriented transmission in TCP.	C311.3	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the Distance Vector Routing algorithm and mention the limitation of the same	C311.2	U
	OR		
12	With an example, explain the function of link state routing protocol.	C311.2	U
13	Explain the state transition diagram of client server model.	C311.3	R,U
	OR		
14	Explain connection establishment procedure of TCP with necessary diagrams.	C311.3	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	With an example, explain the function of an interdomain routing protocol.	C311.2	R,U
	OR		
16	Explain how data transfer takes place using mobile IP with relevant diagrams.	C311.2	R,U

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Internal Assessment Test - II		Date/ Session	06-05-2024 / FN	Marks	50
Course code	EC 3452	Course Title	Electromagnetic Fields		
Batch No.		Duration	90 mins	Academic Year	2023-2024
Year/	II	Sem/ Sec	IV Sem A &B Sec	Department	ECE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No.	Questions	CO	Skills
1	In a cylindrical coordinate system $J = 10e^{-100\rho} a_\phi \ A/m^2$ Find the current crossing through the region $0.01 \le \rho \le 0.02m, \ 0 \le z \le 2m$ and intersection of this region with the ϕ – constant plane.	C212.2	A, E
2	A certain homogeneous slab of lossless dielectric material is characterized by electric susceptibility of 0.12 and carries a uniform electric flux density of 1.6 nC/m². Determine the value of polarization and electric field intensity.	C212.2	A, E
3	State Uniqueness theorem.	C212.2	U, Az
4	State the differential form and integral form of continuity equation.	C212.2	R
5	If $\bar{A} = 10\rho^{-1} \bar{a}_z \ Wb/m$ in free space. Determine $\bar{H}$ and $\bar{J}$.	C212.3	A, E
6	Find the magnetic field intensity at the origin due to the current element Idl=5π(2a$_x$+a$_y$+4a$_z$)μAm at (1,2,4) in free space.	C212.3	A, E
7	An iron ring has a mean circumference of 1.2m and a cross sectional area of 8cm². It is wound with 480 turns. When it is carrying a current of 2A, the flux is found to be 1Wb. What is the permeability of an iron?	C212.3	A, E
8	A current filament carrying 20 A in the a$_z$ direction lies along the entire z axis. Find the H in rectangular coordinates at P(4,5,6).	C212.3	A, E
9	The magnetic field intensity in a current free region is $\bar{H} = \frac{1}{\rho} \bar{a}_\phi \ A/m$. The region is defined by $1m \le \rho \le 2m, \ 0 \le z \le 2m \ and \ 0 \le \phi \le 2m$. Determine the scalar magnetic potential at (4, 50°, 2).	C212.3	A, E
10	A point charge of 4C moves with a velocity of $5\bar{a}_x + 6\bar{a}_y - 7\bar{a}_z \ m/s$. Find the force exerted if the magnetic flux density is $5\bar{a}_x + 7\bar{a}_y + 9\bar{a}_z \ Wb/m^2$.	C212.3	A, E

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	If V=2V at x=1mm and V=0 at x=0 and volume charge density $\rho_v = -10^6 \varepsilon_0 \ C/m^3$ constant throughout the region between x=0 and x=1mm. Calculate V at x=0.5mm and E$_x$ at x=1mm in free space.	C212.2	E,C,A
	Or		
12	(i)Derive Poisson's and Laplace's equation for static electric field. (ii) Given that three point charges 1C, 2C and 3C are situated in free space at the corners of an equilateral triangle of side 1m. Determine the energy stored in the system.	C212.2	E,Az
13	Derive the point form of Ampere's Circuital law using Stoke's theorem.	C212.3	R,Az
	Or		
14	Derive the inductance of Toroid and coaxial cable. Also calculate the energy stored in the magnetic field of the Toroidal winding.	C212.3	C,Az

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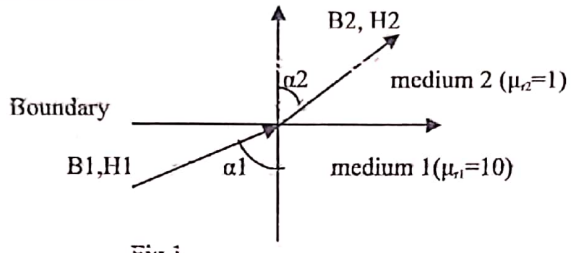
Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A conductor in the form of regular polygon of 'n' sides inscribed in a circle of radius R. Show that the expression for magnetic flux density is $B = \frac{\mu_0 nI}{2\pi R}\tan(\frac{\pi}{n})\ Wb/m^2$ at the center, where I is the current. Show also when n is indefinitely increased then the expression reduces to $B = \frac{\mu_0 I}{2R} Wb/m^2$	C212.3	A,Az, E
	Or		
16	The magnetic flux density is given by $B_1 = 1.2\bar{a}_x + 0.8\bar{a}_y + 0.4\bar{a}_z\ Wb/m^2$ for medium 1 as shown in Fig1. Determine B_2 and H_2 in medium 2. Also calculate the angles made by the fields with the normal.  Fig 1.	C212.3	A, Az, E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering,
Tiruchirapalli.

Internal Assessment Test - II			Date/ Session	04.05.2024/FN	Marks	50
Course code	EC3491	Course Title	Communication Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV /ECE A& B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	SSkills
1	Define Nyquist rate.	C214.2	R
2	Define the term aliasing.	C214.2	R, U
3	State any two non-uniform quantization rules.	C214.2	U
4	A signal is sampled at Nyquist rate of 8 KHz and is quantized using 8bit uniform quantizer. Assuming SNR for a sinusoidal signal, calculate the bit rate, SNR and BW.	C214.2	A
5	Write the advantages and disadvantages of TDM.	C214.2	R, U
6	Compare pre-emphasis and de-emphasis.	C214.2	A
7	Define companding and their types.	C214.2	R, U
8	Differentiate PAM,PPM,PWM.	C214.2	R, U
9	Compare DM and PCM.	C214.3	R,U
10	What are the advantages of DPCM?	C214.3	R,U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the concept of Low pass sampling process, aliasing and signal reconstruction.	C214.2	R,U,A
	Or		
12	Compare the concept of uniform and non-uniform quantization.	C214.2	R,U,A
13	With relevant diagrams explain Delta modulation technique in detail.	C214.3	R,U,A
	Or		
14	Explain about the Differential Pulse Code Modulation with neat diagram.	C214.3	R,U,A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	With neat diagrams, explain Pulse Code Modulation and demodulation system.	C214.2	R,U,A
	Or		
16	The bandwidth of signal input to the PCM is restricted to 4KHz.Theinput varies from -3.8V to +3.8V and has the average power of30mW.The required SNR is 20db.The modulator binary output, assumeuniform quantization (i) calculate the number of bits required persample. (ii)Outputs of 20 PCM coders are multiplexed what is theminimum required transmission bandwidth for the multiplexed signal?	C214.2	R,U,A

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Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/Session	07.04.24/ FN	Marks	50
Course code	EC 3492	Course Title	Digital Signal Processing			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	II	Semester/Section	IV/A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Compare Butterworth and Chebyshev filter.	C213.2	R
2	What is meant by frequency warping?	C213.2	R
3	What are the requirements for an analog filter to be Stable and Causal?	C213.2	R
4	Distinguish between Cheby Type – I and Cheby Type – II filter.	C213.2	R
5	Write down the expression for converting LPF into BPF.	C213.2	U
6	What are the properties to design digital filter from analog filter ?	C213.2	R
7	Write down mathematical expression for converting analog filter into digital filter by using a derivative method.	C213.2	U
8	What is the reason that FIR filter is always stable?	C213.3	R
9	Write down the advantages of FIR filter	C213.3	R
10	What is meant by Group delay and Phase delay ?	C213.3	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Design a digital Butterworth filter to meet the following constraints $0.707 \leq \lvert H(e^{j\omega})\rvert \leq 1; for\ 0 \leq \omega \leq 0.5\pi$ $\lvert H(e^{j\omega})\rvert \leq 0.2; \quad for\ 0.75\pi \leq \omega \leq \pi$ By using Bilinear Transformation Method. Assume T=1 sec.	C 213.2	A,E
	OR		
12	(a). Explain why IIT method is not suitable for designing High pass filter (b). Derive the transfer function of the second order normalized analog Butterworth low pass filter.	C 213.2	A,E
13	Design a Chebyshev lowpassfilter using Impulse Invariance method for the following specification. $0.8 \leq \lvert H(e^{jw})\rvert \leq 1\ for\ 0 \leq \omega \leq 0.2\pi$ $\lvert H(e^{jw})\rvert \leq 0.2\ for\ 0.6\pi \leq \omega \leq \pi$	C 213.2	AZ,E
	OR		
14	Using Bilinear transformation, design a digital high pass filter that has cut-off frequency of $1000Hz$ and down $10dB$ at $50Hz$. The sampling frequency is $5KHz$. .	C213.2	AZ, E

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Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Design a digital ideal Lowpass FIR Filter for the following specifications. $H_d(e^{jw}) = \begin{cases} 1\,; for -\frac{\pi}{2} \le \omega \le \frac{\pi}{2} \\ 0; \quad \frac{\pi}{2} \le \omega \le \pi \end{cases}$ With N=11. Using Discrete Fourier Series Method.	C213.3	R,U
	OR		
16	Design a digital ideal Band Stop FIR Filter for the following specifications, $H_d(e^{jw}) = \begin{cases} e^{-j5\omega}\,; for\ \lvert\omega\rvert \le \frac{\pi}{3} and\ \lvert\omega\rvert \ge \frac{2\pi}{3} \\ 0; \quad other\ wise \end{cases}$ With N=7. Using Discrete Fourier Series Method.	C213.3	A,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name Of the Staffs: Dr.M.Padmaa/Prof/ECE and G.Sivakannu/AP/ECE

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Saranathan College of Engineering

Tiruchirapalli-12

I years · ECE - 126

Internal Assessment Test - II		Date/ Session	02/05/2024	Marks	50
Course code	PH 3254	Course Title	Physics for Electronics Engineering		
Batch No.		Duration	1 ½ Hours	Academic Year	2023 - 2024
Year	I Year	Sem/ Branch	II / ECE	Department	ECE

Part – A

Answer all the questions (10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define Fermi distribution function.	C111.2	R
2.	What is periodic potential?	C111.2	U
3.	Define magnetic susceptibility.	C111.3	U
4.	Write the relation between χ_m and μ_r.	C111.3	A
5.	Define Bohr magneton.	C111.3	U
6.	What is meant by retentivity and coercivity?	C111.3	R
7.	List some properties of semiconductor.	C111.4	R
8.	How does the electrical conductivity increase in intrinsic semiconductor?	C111.4	U
9.	Distinguish direct and indirect band gap semiconductors.	C111.4	U
10.	What is Fermi energy level of intrinsic semiconductor?	C111.4	R

Part – B

Answer all the questions (3 x 10 = 30 marks)

Q. No.	Questions		CO	Skill
11.a.	Derive an expression for density of energy states in a metal.	(10)	C111.2	A
	Or			
11.b	Derive the expression for effective mass of electron.	(10)	C111.2	A
12.a	Distinguish the properties of Dia, Para and Ferro magnetic materials.	(10)	C111.3	U
	Or			
12.b	Describe the writing and reading of data in magnetic hard disk using GMR sensors.	(10)	C111.3	U
13.a	Derive the expression for density of electrons in conduction band.	(10)	C111.4	A
	Or			
13.b	Derive the expression for density of holes in valence band.	(10)	C111.4	A

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SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI

Internal Assessment Test – II			Date/ Session	.04.24	Marks	50
Course code	HS3252	Course Title	PROFESSIONAL ENGLISH II			
Batch No.		Duration	1hr 30min	Academic Year	2023 - 2024	
Year	I	Semester/ Section	II/ All Branches	Department	ENGLISH	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	QUESTIONS	CO	Skills
1	**Rewrite the following as numerical adjectives** **(4x1/2=2)** 1. Three barrels which can hold five liters each. 2. A pipe with a length of 11 feet 3. A squad of 100 men 4. At intervals of 10 minutes	CO.02	U,R
2	**Give the appropriate numerical expression for the following** **(4x1/2=2)** 5. 150 rpm 6. 15 psi 7. 40 ppm 8. 350 kHz	CO.02	UR
3	**Complete the following sentences using conjunctions:** **(4x1/2=2)** 1. He is _____ intelligent_____ hard working. 2. _____ I am hungry, I am patiently waiting for you. 3. Pay attention to your work _____ you will not make mistakes. 4._____ he was washing my car, I went to the store.	CO.02	U,R, A
4	**Complete the following conditional sentences:** **(4x1/2=2)** 1. He_____(understand) you if you whisper. 2. She would pick you up, if you _____ (remind) her. 3. If students maintain a diary, they ____ (forget) their homework so often. 4. If I had relished your cooking, I _____ (come) for the dinner.	CO.02	U,R, A
5	**Complete the following conditional sentences** **(4x1/2=2)** 1.If he had reached the Mars ,_____. 2. _____, he would write in a legible handwriting. 3.Unless the weather is good, _____. 4.If I were a saint,_____.	CO.02	U,A, R
6	**Fill in the blanks with the correct form of verbs** **(4x1/2=2)** 1. By next June he _____ (finish) his course. 2. The train _____ (leave) in ten minutes. 3. When we arrived, the dinner already _____ (begin). 4. While she _____ (drive) to her office, she saw her friend.	CO.04	U,R
7	**Complete the sentences using the correct modal verbs** **(4x1/2=2)** 1.We_____drink more water. (Recommendation) 2. He _____ pay the fees by tomorrow. (promise) 3. You_____(ability) attend the car festival but you _____ (order) be safe. 4. I _____ climb a mango tree when I was a kid but I _____(not) do so now.(ability)	CO.04	U,R

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8	**Fill in the blanks with suitable prepositions.** **(4x1/2=2)** Steve Jobs co-founded Apple Computer _____Steve Wozniak _____1976. It soared_____ its start as a garage venture _____ a technology giant.	CO.04	U,R
9	**Apply the right Relative clauses.** **(4x1/2=2)** 1. He is my uncle. His absence worries me much. 2. They are my friends. They are bookish. 3. It is a cookie. It tastes so good. 4. I live in a city. It is in the north of England.	CO.04	U,R
10	**Spot the error in the sentence and rewrite the correct one.** **(4x1/2=2)** 1. One of my alumni are the CEO of a renowned software company in Canada. 2. A shoal of fish give us mental relief. 3.Rakesh run along the track. 4.They discussed about the problem very seriously.	CO.04	U,R

PART –B

(Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO	Skills
11	**Write a set of eight recommendations to stay away from mobile usage and reduce your screen time. (10)**	CO.05	U, C
12	**Assume yourself as a student coordinator of your college cultural club. You have been asked to conduct intercollegiate cultural events. Write a checklist of eight items to be done to make the event a successful one. (10)**	CO.03	U, C
13	**Draft a cover letter and a resume based on the following details, (10)** **RR Mines, Raipur, Chattisghar, needs Junior Survey Engineer Send your application to the following address: The Executive Director RR Mines Limited 45,Greams Road Chennai-6200035**	CO.06	U,C, A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

Tiruchirappalli -12

I year All - 760

Internal Assessment Test – II			Date/Session	30.04.2024 / FN	Marks	50
Course code	MA3251	Course Title	STATISTICS AND NUMERICAL METHODS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/Section	II / A & B	Department	ALL	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO's	Skills
1.	State the Newton's forward formulae for the first and second order derivatives at $x = x_0$ upto the fourth order difference term.	CO5	R
2.	State any two properties of divided differences.	CO5	R
3.	Give the Newton's Backward difference table for x: 0, 1, 2, 3 y: −1, −2, −1, 2	CO5	U
4.	Write down the errors in Trapezoidal and Simpson's rules of numerical integration.	CO5	R
5.	Evaluate $\int_1^2 \frac{x\,dx}{1+x^2}$ using Trapezoidal rule, taking $h = 0.2$.	CO5	E
6.	Interpret geometrically Trapezoidal rule.	CO5	U
7.	Give examples for single step method for solving ordinary differential equations.	CO6	R
8.	Find $y(0.1)$ by Euler's method , if $\frac{dy}{dx} = x^2 + y^2$, $y(0) = 0.1$	CO6	E
9.	Using Modified Euler method, find y(0.1) given $\frac{dy}{dx} = 1 - y$, $y(0) = 0$	CO6	E
10.	Why do we need numerical methods to solve differential equations?	CO6	U

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO's	Skills
11	Find the number of students whose weight is between 60 and 70 lbs from the following data using Newton's forward difference interpolation formula X(weight in lbs): 0-40, 40-60, 60-80, 80-100, 100-120 Y(No. of students): 250, 120, 100, 70, 50	CO5	A
	(Or)		

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12	A rod is rotating a plane. The following table gives the angle θ with respect to time t seconds 	t	0	0.2	0.4	0.6	0.8	1.0
---	---	---	---	---	---	---
θ	0	0.12	0.49	1.12	2.02	3.20 | Calculate the angular velocity and angular acceleration of the rod when $t = 0.6$ seconds.	CO5	A
13	Evaluate $\int_0^1 \frac{1}{1+x} dx$, using (i) Trapezoidal rule & (ii) Simpson's $\frac{1}{3}$ rule with h = 0.125 and compare the result with exact value.	CO5	E
	(Or)		
14	Evaluate $\int_0^1 \int_0^1 \frac{dxdy}{1+x+y}$ by Simpson's rule and Trapezoidal rule with $h = k = 0.25$.	CO5	E
15	Given $\frac{dy}{dx} = x^2 + y^2$, $y(1) = 2$, find $y(1.1)$ using Euler's method and $y(1.2)$ using Modified Euler's method.	CO6	E
	(Or)		
16	Solve $\frac{dy}{dx} = x^2 - y$, given $y(0) = 1$ and find values of $y(0.1), y(0.2)$ and $y(0.3)$ using Taylor series method, correct to 4 decimal places.	CO6	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

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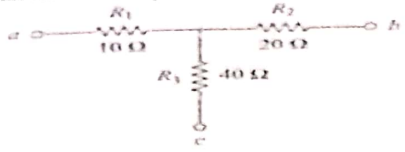
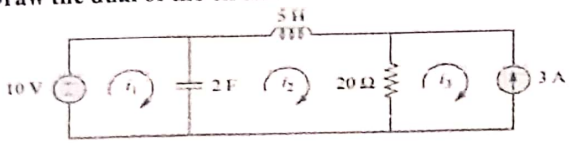
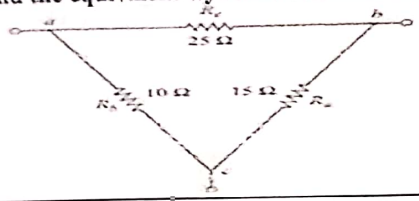
Saranathan College of Engineering

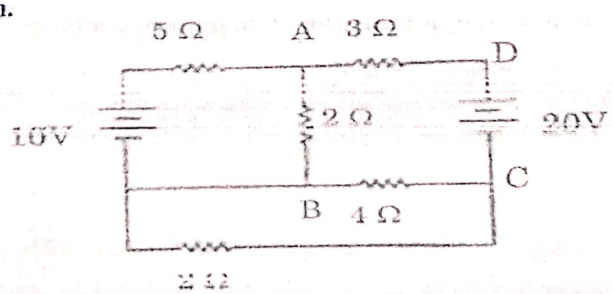
Tiruchirapalli

INTERNAL ASSESSMENT TEST -2		Date/ Session	.05.2024/ FN	Marks	50
Course code	EC3251	Course Title	CIRCUIT ANALYSIS		
Batch No.		Duration	90 mins	Academic Year	2023-24 Even
Year/	1	Semester/ Section	II/A & B	Department	ECE

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Transform the wye network to delta 	CO2	AZ,E
2	Draw the dual of the circuit 	CO2	R
3	Find the equivalent wye network from the delta 	CO2	E
4	Why is the Superposition Theorem not applicable to directly calculate the power in linear circuits?	CO2	E
5	State the maximum power Transfer Theorem.	CO2	E
6	A resistance of 100 Ω and a capacitance of 40μF are connected in series across a 400V supply of 50HZ. Find the current in the circuit.	CO3	U
7	Calculate the true power absorbed by an impedance Z= 30-j70Ω when a voltage V=120 ∟0° is applied across it.	CO3	R
8	What is reactive power? Write the formula to calculate reactive power	CO3	E
9	Find the amplitude, phase, period, and frequency of v(t)=20 cos(100t-10°)	CO3	R
10	Find the net impedance of a series RLC circuit if the inductive reactance, capacitive reactance and resistance are j184Ω, -j144Ω and 30Ω respectively. Also calculate phase angle between voltage and current.	CO3	E

Part – B& C(Answer all the questions 3x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Find the current in 2Ω resistor between A and B using the superposition theorem. 	CO2	AZ,E
	OR		

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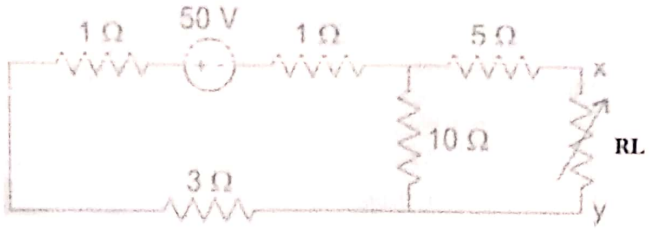
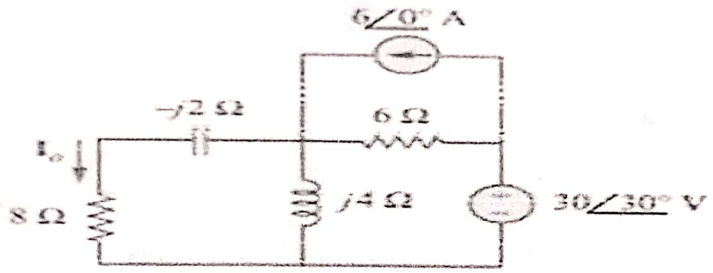
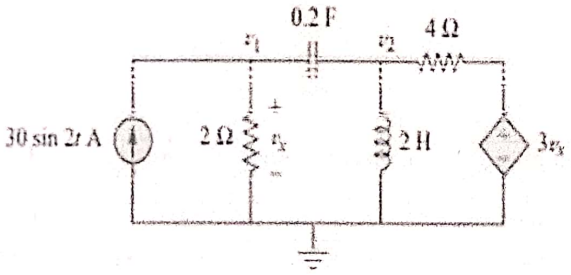
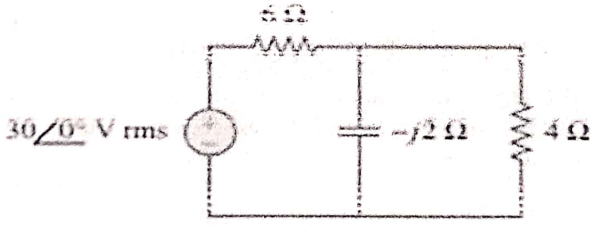
12	Find the value of R_L for maximum power to R_L and calculate the maximum power. 	CO2	AZ,E
13	Find I_0 using mesh analysis 	CO3	AZ,E
	OR		
14	Using nodal analysis find v1 and v2 in the circuit 	CO3	AZ,E
15	Determine the power factor of the circuit and calculate the average power delivered by the source. 	CO3	AZ,E
	OR		
16	For a load, Vrms = 110∟85 ° V, Irms = 0.4∟15 °A. Determine a) complex and apparent power, b) Reactive and real powers, c) Power factor and impedance.	CO3	AZ,E

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.29th May 2024

Circular

Third Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 3rd June 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

After iA Test coaching class will be conducted for next day iA test subject.

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

Third IA Test for Second Year (4th Sem.) _ June 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
3rd June 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
4th June 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	IT3401 - Web Essentials	EC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	CS3452 - Theory of Computation
5th June 2024	CS3491 - Artificial Inteligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3401 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AL3451 - Machine Learning	CS3492 - Database Management System	AL3452 - Operating Systems
6th June 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3492 - Data Base Management System	EC3492 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	AD3391 - Database Design and Management
10th June 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	CS3451 - Introduction to Operating System	EC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
11th June 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591 - Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

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SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

Third IA Test for First Year (2nd Sem.) _ June 2024

Year: First Sem. 2nd

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
3rd June 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
4th June 2024	Batch - 1 ----------(MA3251) Batch - 2 ----------PH3256 / PH3254 / PH3201 / PH3255						
5th June 2024	Batch - 1 ---------- PH3256 / PH3202 / PH3251 Batch - 2 ----------(MA3251)						
6th June 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254-Electrical and Instrumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instrumentation
7th June 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251-Circuit Analysis		
10th June 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Batch - 1 - AIDS (A Sec) , CSE (A & B Sec), AIML, EEE, Mech.,
Batch - 2 - AIDS (B Sec) , IT, CSBS, ECE (A & B Sec), Civil, ICE

Principal

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SARANATHAN COLLEGE OF ENGINEERING - TRICHY-12

INTERNAL ASSESSMENT TEST III -I/II YEAR BE/B.TECH - EVEV SEM 2023-24

SEATING ARRANGEMENT

ROOM NO	BRANCH	SECTION	YEAR	Batch No - (From - To)	COUNT
RV 301	ECE	A	II	252001-252019	17
RV 302	ECE	A	II	252020-252034	15
RV 303	ECE	A	II	252035-252050	16
RV 304	ECE	A/B	II	252051-252064	15
RV 305	ECE	B	II	252065-252080	16
RV 306	ECE	B	II	252081-252096	16
RV 307	ECE	B	II	252097-252112	16
KS113	ECE	B	II	252113-252124	11
RV 413	ECE	A	I	262001-262004	4
RV 414	ECE	A	I	262005-262020	16
RV 415	ECE	A	I	262021-262036	16
KS 311	ECE	A	I	262037-262054	18
KS 312	ECE	A/B	I	262055-262072	18
KS 313	ECE	B	I	262073-262090	18
KS315	ECE	B	I	262092-262109	18
KS 316	ECE	B	I	262110-262122	13
KS 213	ECE	B	I	262123-262127	5

HOD/ECE

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SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF ECE

IAT 3 (II , I YEAR) DUTY LIST 2023-2024 EVEN SEMESTER

02.06.2024

S.no	STAFF NAME	03.06.2024	04.06.2024	05.06.2024	06.06.2024	07.06.2024	10.06.2024	11.06.2024	
1	Dr. S.A Arunmozhi			@					1
2	Dr. S Rajeswari	@							1
3	Dr. V Mohan			@					1
4	Dr. P Shanmugapriya	@							1
5	Dr. M Baritha Begum								0
6	Mr. S Hariprasath							@	1
7	Dr. K Malaisamy								0
8	Ms. P Sivagamasundhari								0
9	Ms.J.Eindhumathy		@			@		@	3
10	Mr. M Mahendran	@					@		2
11	Mr. G Sivakannu		@		@				2
12	Ms. S Kiruthiga		@				@		2
13	Ms. M Anthuvan Lydia						@		1
14	Mr.A.Kesavan							@	1
		3	3	2	1	1	3	3	16

HOD/ECE

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First years EG.
Batch - I - 250

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	.05.2024		Marks	50
Course code	GE3251	Course Title	ENGINEERING GRAPHICS				
Batch No.		Duration	90 min	Academic Year	2023 - 2024		
Year	I	Semester/Sec	II	Department	ECE A & B, CSBS & AIML		

Q. No.	Questions	CO	Skills
1.	A cone of 50mm diameter and 60mm height with its axis vertical is cut by section plane perpendicular to HP, inclined to VP at 60° and passing through a point 10mm away from the axis. Draw its sectional plan, sectional elevation and true shape of the section. (15 marks)	C115.5	R & U
	(OR)		
2.	A square pyramid of 50mm side of base and 30mm height stands on HP with the adjacent base edges making equally inclined to VP. It is cut by a plane at right angles to VP, 50° to HP and bisects the axis of the solid. Draw the true shape of the section. (15 marks)	C115.5	R & U
3.	A cylinder of 50mm diameter and 60mm height rest with its base on HP. It is cut by a cutting plane perpendicular to VP, inclined to HP at 50° and passing through a point on the axis 12mm from its top end. Develop the lateral surface of the truncated solid. (15 marks)	C115.5	R & U
	(OR)		
4.	A pentagonal pyramid, base side 30mm and altitude 60mm resting with its base on HP, with one of its base edges perpendicular to VP. It is cut by a section plane which is perpendicular to HP, inclined to VP at 45° and passing through a point 10mm in front of the axis. Develop the lateral surface of the cut solid. (15 marks)	C115.5	R & U
5.	A hexagonal prism base side 25mm and axis 60mm long resting with its base on the ground plane such that one of its rectangular surfaces is parallel to and 20mm behind the picture plane. The station point is 25mm in front of picture plane, 90mm above the ground plane and lies in the central plane 40mm to the left of the center of the prism. Draw the perspective projection of the hexagonal prism. (20 marks)	C115.6	R & U
	(OR)		
6.	A pentagonal prism base side 25mm and axis height 50mm rest with its base on HP having one of its rectangular surfaces parallel to VP. It is cut by a section plane 30° to HP perpendicular to VP and intersects the axis of the solid at 40mm from its base. Draw the isometric projection of the truncated solid. (20 marks)	C115.6	R & U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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FIRST YEAR

Batch - 2

Saranathan College of Engineering

Tiruchirapalli-12

ECE-126

Internal Assessment Test -III		Date/Session	04/06/2024	Marks	50
Course code	PH3254	Course Title	Physics for Electronics Engineering		
Batch No.		Duration	1 ½ Hours	Academic Year	2023 -2024
Year	I	Sem/Branch	II / ECE	Department	ECE

Part–A

Answer all the questions (10 x 2 = 20 marks)

Q.No.	Questions	CO	Skills
1.	What is an opto-electronic device?	C111.4	R
2.	What are the types of photo detector?	C111.4	U
3.	How is a light emitting diode different from a semiconductor laser?	C111.4	U
4.	What are the advantages of Laser diodes?	C111.4	U
5.	What are optical modulators?	C111.4	U
6.	What is meant by optical switching?	C111.4	R
7.	What are the advantages of optical switching devices?	C111.4	R
8.	Define quantum confinement	C111.5	R
9.	What is spintronics?	C111.5	U
10.	What is meant by Ballistic Transport?	C111.5	U

Part–B

Answer all the questions (3 x 10 = 30 marks)

Q.No.	Questions		CO	Skills
11.a.	Explain the construction and working of solar cell.	(10)	C111.4	U
	Or			
11.b	What are the layers used in an OLED? Explain the working of an OLED.	(10)	C111.4	U
12.a	Discuss density of states in quantum well ,quantum wire and quantum dot.	(10)	C111.5	U
	Or			
12.b	Explain the construction and working of a Single Electron Transistor.	(10)	C111.5	U
13.a	Describe the carbon nanotubes with their properties and applications.	(10)	C111.5	U
	Or			
13.b	Describe the construction and working of a quantum well laser.	(10)	C111.5	U

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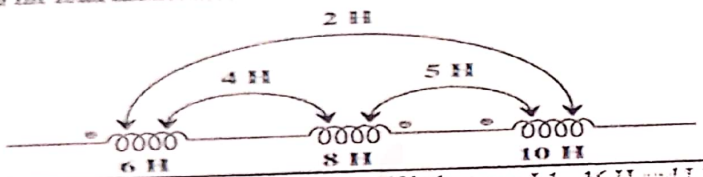
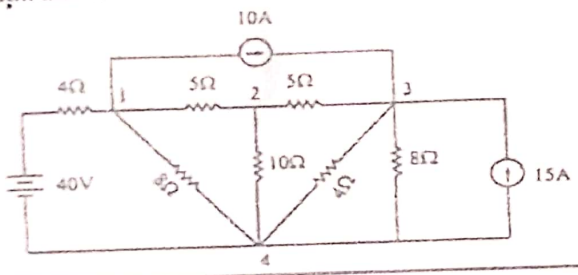
Saranathan College of Engineering

Tiruchirapalli

INTERNAL ASSESSMENT TEST -3			Date/ Session	07.06.2024/ FN	Marks	50
Course code	EC3251	Course Title	CIRCUIT ANALYSIS			
Batch No.		Duration	90 mins	Academic Year		2023-24 Even
Year/	I	Semester/ Section	III/A & B	Department		ECE

Part – A (Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is meant by the transient state?	CO4	R
2	The voltage across capacitance cannot change instantaneously. justify	CO4	AZ
3	Find time constant of RL circuit. Given R=50 ohms and L=100mH.	CO4	E
4	A coil of 20 ohms resistance and 0.2 H are connected in parallel with a capacitor of 100μF. Calculate the frequency at which the circuit will behave as a resistive circuit.	CO5	E
5	A series RLC load has R = 1 kΩ , C=1pF , L =10 mH. Find the Q factor for load.	CO5	E
6	Define a tree and give its characteristics.	CO6	U
7	Find the total inductance 	CO6	AZ
8	Two inductively coupled circuits with self inductance L1 –16 H and L2–4H and M–2H. Find the coefficient of coupling.	CO6	E
9	Define cut set matrix.	CO6	R
10	Draw graph and find number of nodes and branches 	CO6	E

Part – B& C(Answer all the questions 3x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Find L, Quality factor and bandwidth. Given Resonant frequency = 750Hz, R=400ohms and C=0.1μF.	CO5	AZ,E
	OR		
12	A series circuit with R=10 Ω, L=0.1 H and C=50 μF has an applied voltage V=50∟0° V with a variable frequency. Find (1) the resonant frequency (2) Bandwidth (3) quality factor of coil.	CO5	AZ,E
13	Derive the transient response of series RL circuit for step input and draw its transient current and voltage waveforms.	CO6	AZ,E
	OR		
14	A series RC circuit has R=50ohms and C=50μF has constant voltage 50V applied at t=0. Find current. Assume zero initial conditions.	CO6	AZ,E

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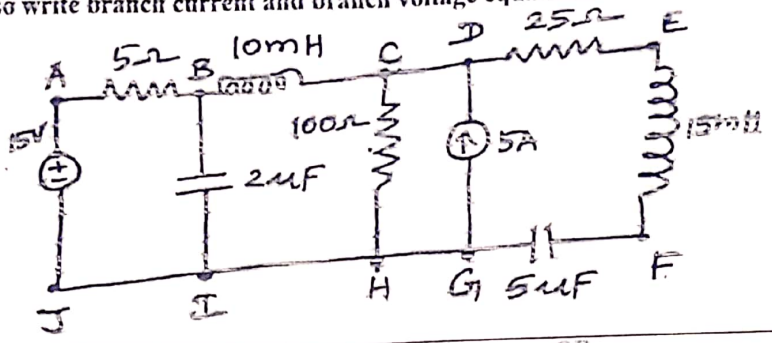
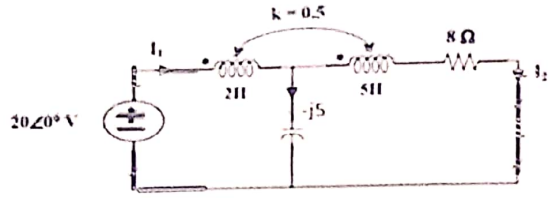
15	Draw graph and find incidence matrix, Tie set matrix and cut set schedule. Also write branch current and branch voltage equations 	CO6	AZ,E
	OR		
16	Determine the current i1 and i2 in the given circuit. Take ω = 10 rad/sec 	CO6	AZ,E

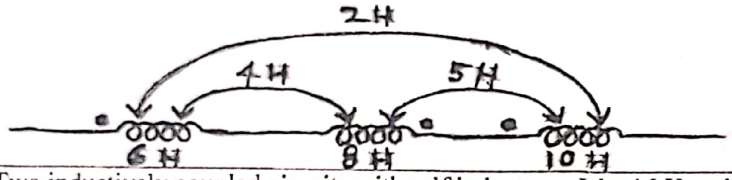
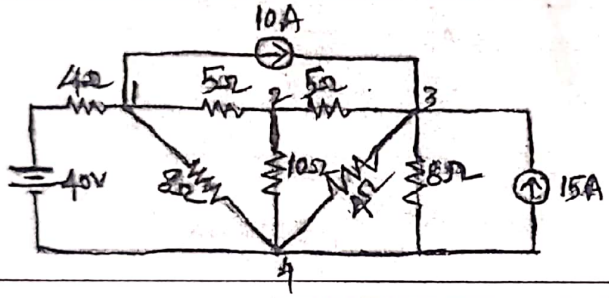
Saranathan College of Engineering

First year ECE - 126

Tiruchirapalli

INTERNAL ASSESSMENT TEST -3			Date/Session	07.06.2024/FN	Marks 50
Course code	EC3251	Course Title	CIRCUIT ANALYSIS		
Batch No.		Duration	90mins	Academic Year	2023-24 Even
Year/	I	Semester/Section	II/A&B	Department	ECE

Part –A(Answer all the questions 10 x 2=20 marks)

Q.No.	Questions	CO	Skills
1	What is meant by the transient state?	CO4	R
2	The voltage across capacitance cannot change instantaneously. justify	CO4	AZ
3	Find time constant of RL circuit. Given R=50 ohms and L=100mH.	CO4	E
4	A coil of 20 ohms resistance and 0.2 H are connected in parallel with a capacitor of 100μF. Calculate the frequency at which the circuit will behave as a resistive circuit.	CO5	E
5	A series RLC load has R = 1 kΩ , C=1pF , L =10 mH. Find the Q factor for load.	CO5	E
6	Define a tree and give its characteristics.	CO6	U
7	Find the total inductance 	CO6	AZ
8	Two inductively coupled circuits with self inductance L1 =16 H and L2=4H and M= 2H. Find the coefficient of coupling.	CO6	E
9	Define cut set matrix.	CO6	R
10	Draw graph and find number of nodes and branches 	CO6	E

Part–B&C(Answer all the questions 3x10=30 marks)

Q.No.	Questions	CO	Skills
11	Find L, Quality factor and bandwidth. Given Resonant frequency = 750Hz, R=400ohms and C=0.1μF.	CO5	AZ,E
	OR		
12	A series circuit with R=10 Ω, L=0.1 H and C=50 μF has an applied voltage V=50∟0° V with a variable frequency. Find (1) the resonant frequency (2) Bandwidth (3) quality factor of coil.	CO5	AZ,E
13	Derive the transient response of series RL circuit for step input and draw its transient current and voltage waveforms.	CO6	AZ,E
	OR		
14	A series RC circuit has R=50ohms and C=50μF has constant voltage 50V applied at t=0. Find current. Assume zero initial conditions.	CO6	AZ,E

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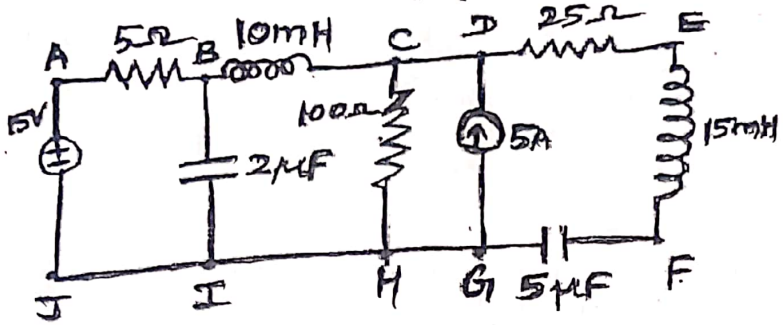
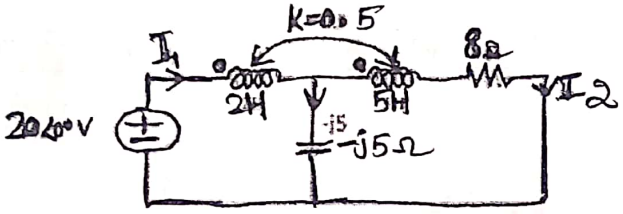
15	Draw graph and find incidence matrix, Tie set matrix and cut set schedule. Also write branch current and branch voltage equations 	CO6	AZ,E
	OR		
16	Determine the current i1 and i2 in the given circuit. Take ω = 10 rad/sec 	CO6	AZ,E

SARANATHAN COLLEGE OF ENGINEERING
TIRUCHIRAPALLI

First years - I

rnal Assessment Test – III		Date/ Session	03.06.2024	Marks- 50
rse e	HS3252	Course Title	PROFESSIONAL ENGLISH II	
:h No.		Duration	1hr 30min	AcademicYear 2023 - 2024
r	I	Semester/	II/ All Branches	Department ENGLISH

Part – A (20 marks) **(Answer all the questions)**

). No.	QUESTIONS		CO	Skills
1	**Rewrite the following as numerical adjectives** 1. A group of eight nations 2. Three barrels of ten liters of milk 3. An arrangement of 32 teeth space. 4. Blocks of 2 ½ tons.	(2)	CO.05	U,R
2	**Rewrite the following sentences into active / passive voice** 1. Please consult the doctor 2. Why did you do this? 3. Music interests me. 4. The trainers took the horse after the race to its stable. 5. We can alter the characteristics of metal in various ways. 6. Nobody has borrowed books from the library.	(2)	CO.05	U,R
3 A	**Report the following speech** **Receptionist :** Good morning. This is Hotel Oberoi, Bangalore. How may I help you? **Mr. Deepak :** Good morning. I would like to make a booking in your hotel. Kindly book a suite with attached bathroom and lobby for Monday, September 20, 2012.	(2)	CO.05	U,R,A
3 B	**Rewrite the following in reported speech.** 1. My grandfather told me, "Can you fetch me some water?" 2. I said to him, "Please wait here till I return?" 3. Lila said to her friends, "Let us have a picnic" 4. The girl said, "Wow! What a beautiful flower?"	(2)	CO.05	U,R,A
4	**Complete/Join the following using relative clause** 1. I wanted to see the doctor _____ is famous. 2. The moment, _____ is lost is lost forever. 3. The new phone is very good. It was launched last week 4. Dev is very handsome. He is Iman's brother.	(2)	CO.05	U,A, R
5	**Fill in the blanks with the correct form of verbs** 1. By next June, he _____ (finish) his course. 2. Before I reached Chinnaswamy Stadium, the match _____already _____ (finish). 3. When I went there, Bucky _____(play) video games. 4. Mr Arnold _____ (write) his last book for four months.	(2)	CO.05	U,R
6 A	**Identify the errors in the following sentences:** 1.The inflation rate (a) / was currently high in India (b) / No Error (c) 2. She was my class teacher (a) / and she didn't went (b) / to the school yesterday (c) / No error (d). 3. It has been (a) / proved multiple times (b) / that Riya is a honest girl (c) / No Error (e) 4.The inspector insisted Rahul (a) / to report to the police station (b) / as soon as he came	(2)	CO.05	U,R

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	from office (c) / No Error (d).			
B	**Spot the error in the sentence and rewrite the correct one** 1. Both Ram as well as Hari were there. 2. She will do it if she will have time. 3. We have studied here for the last three years. 4. The number of pupils are increasing.	(2)	CO.05	U,R
7	**Fill in the blanks with suitable prepositions.** Jim was walking _____ the campus _____ noon when he met a friend whom he had not seen _____ summer. They stopped in front of the gymnasium and sat _____ the steps.	(1)	CO.05	U,R
8	**Fill in the blanks with suitable Conjunctions** We went to the stadium_____ enjoyed the cricket match. _____ the weather was chill we went there. We bought_____ ice cream_____chocolate as our snacks.	(1)	CO.05	U,R
9.	**Which of the three sentences containing a modal has the same meaning as the original one?** **Are you able to drive a tractor?** i) Can you drive a tractor? ii) Must you drive a tractor? iii) Should you drive a tractor? **Complete the sentences using the correct modal verbs** 1. Madam, _____ (could/may) you please repeat what you said? (polite request)	(1)	CO.05	U,R
10.	**Frame the right conditional statement to complete the sentence** 1. If I had more time, _____. 2. How can you finish the project if _____.	(1)	CO.05	U,R

PART –B - (Answer all the questions 3 x 10 = 30 marks)

Q. No.	Questions	CO	Skills
11	a) **Respond to this advertisement with a cover letter and a text resume.** Wanted: Technical Design Executives Preferred qualification: Any degree in Engineering with proficiency in English and good interpersonal skills Send an email to The Human Resource Manger, GM solutions, Pune-410088 Email id: hr.gmsolutions@gmail.com **or** b) Draft a profile for utensil manufacturing company	CO.06	U,A,R
	a) Write and submit a report to the Manager of the Bore well contracts stating the reasons, causes and remedies for the accident on site while digging bore	CO.06	U,A,R

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well.

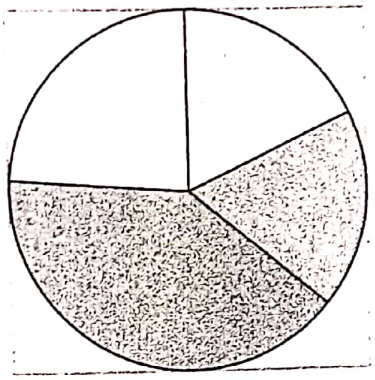
Or

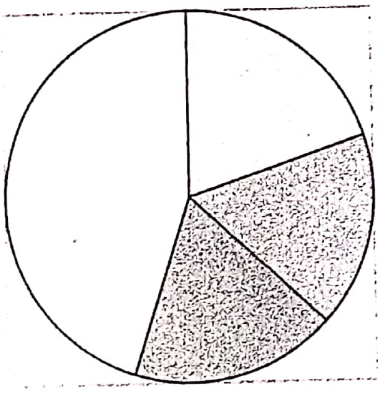
b) Explain the essential elements of writing a Statement of Purpose (SOP).

CO.05 U,A,R

13

a) The following pie charts give information about the distribution of Indian population moving to different parts of the world. The first pie chart gives the percentage of distribution of migrants and second pie chart gives the age group. Write a paragraph explaining and interpreting the data.





CO.04

Or

b) Write a survey report on the reading habit of students and utilization of college library after college hours and submit it to the principal.

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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I year - AIDS-B, CSBS, IT ECE A&B Civil ECE - 366

SET-B

Saranathan College of Engineering

Tiruchirappalli -12

Internal Assessment Test – III			Date/Session	05.06.2024 / FN	Marks	50
Course	MA3251	Course Title	STATISTICS AND NUMERICAL METHODS			
Batch No		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/Section	II / A & B	Department / Batch-2	AIDS - B, CSBS, IT, ECE- A&B, CIVIL& ICE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO's	Skills
1.	Define critical region.	CO1	R
2.	What is null hypothesis and alternate hypothesis?	CO1	R
3.	What are the applications of chi–square test?	CO1	U
4.	Write down the formula for test statistic t to test the significance difference between the means.	CO1	R
5.	Write about F- test.	CO1	R
6.	What are the assumptions on which Large sample test (Z-test) is based?	CO1	U
7.	What is the Aim of Design of Experiment?	CO2	U
8.	Write the ANOVA table for one way classification.	CO2	R
9.	Define RBD.	CO2	R
10.	What are the advantages of a Latin square design?	CO2	U

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO's	Skills
11.	(i) If $\frac{dy}{dx} = \frac{1}{x+y}$, y(0) = 1 , find y(0.1) using Runge-Kutta method of fourth order.	CO 6	E
	(ii) A machine puts out 16 imperfect articles in a sample of 500. After machine is overhauled, it puts out 3 imperfect articles in a batch of 100. Has the machine improved?	CO 1	A
	(Or)		
12.	(i) Given $5x\frac{dy}{dx} + y^2 - 2 = 0$, y(4) = 1, y(4.1) = 1.0049 , y(4.2) = 1.0097, y(4.3) = 1.0143. Compute y(4.4) by Adam's Predictor-Corrector method.	CO 6	E
	(i) The machine is supposed to fill plastic bags with 40gms of a chemical powder. A sample of 160 bags shows the average weight to be 39.8gms, with a S.D of 1.2gms. Test whether the machines require checking at 5% level of significance?	CO 1	A

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13.	(i)Using chi square test, test whether there is association between skill father & son. **Skilled Father / Unskilled Father / Total** Intelligent boy: 40 / 35 / 75 Un intelligent boy: 40 / 85 / 125 Total: 80 / 120 / 200	CO1	A
	(ii) In a sample of 8 observations the sum of the squares of deviations of the sample values from the sample mean was 84.4 and in other sample of 10 observations it was 102.6. Test whether this difference is significant is 5% level.	CO1	A
	(Or)		
14.	(i)The mean weakly sales of a powder in supermarket was 146.3 tins. After a special advertising campaign the mean weakly sales in 22 brand increased to 153.7 tins and showed a S.D.17.2 tins. Was the advertising campaign successful?	CO1	A
	(ii) The following table gives the No. of aircraft accidents during various days of a week. Find whether the accidents are uniformly distributed. Day: Sun / Mon / Tue / Wed / Thu / Fri / Sat No. of accidents: 14 / 16 / 8 / 12 / 11 / 9 / 14	CO1	AZ
15.	Four varieties A, B, C, D of a fertilizer are tested in a Randomized Block Design with four replication. The plot yields in pounds are as follows. Analyse the experimental yield. A12 D20 C16 B10 D18 A14 B11 C14 B12 C15 D19 A13 C16 B11 A15 D20	CO2	AZ
	(Or)		
16.	A farmer wishes to test the effects of four different fertilizers A, B, C, D on the yield of wheat. In order to eliminate sources of error due to variability in soil fertility, he uses the fertilizers, in a Latin square arrangement as indicated in the following table, where the numbers indicate yields in bushels per unit area. A 18 / C 21 / D 25 / B 11 D22 / B 12 / A 15 / C 19 B 15 / A 20 / C 23 / D 24 C 22 / D 21 / B 10 / A 17	CO2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

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Saranathan College of Engineering

Tiruchirapalli First year - ECE - 126

Internal Assessment test – III			Date/Session	06.06.2024 / FN	Marks	50
Course code	BE3254	Course Title	ELECTRICAL AND INSTRUMENTATION ENGG.			
Batch No.		Duration	90 mins	Academic Year	2024	
Year	I	Semester/Section	II / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Mention the components present in the data acquisition system.	C112.3	R,U
2	What are the starting methods of Synchronous motor?	C112.3	R
3	Differentiate C.T. and P.T.	C112.4	AZ
4	Compare MC and MI Instruments.	C112.4	AZ
5	Draw the block diagram of functional elements of measuring system.	C112.4	U
6	What are the types of torques included in the indicating instruments?	C112.4	U,R
7	Define Calibration.	C112.4	AZ
8	Why earthing is important in any power system? Mention some of its types.	C112.5	U
9	Write a short note on MCB and MCCB?	C112.5	A,R
10	What are the advantages and disadvantages of Fuse?	C112.5	U,R

Part – B

Q. No.	Questions	CO	Skills
11	Describe the construction and working of PMMC instrument. Derive the equation for deflection if the instruments are spring controlled.	C112.4	U,E
	Or		
12	Explain the working and types of AC starters. (Any 4)	C112.4	R,A
13	With a neat Block diagram, briefly explain about the Digital storage oscilloscope.	C112.4	A,U
	Or		
14	Explain 3 phase Power measurement using two watt meter measurement method with necessary diagram and expressions.	C112.4	E,AZ
	Part-C		
15	Using a single line diagram, describe the electrical energy transmission and distribution system?	C112.5	AZ,A
	Or		
16.	Explain the functions of Earthing and the various Earthing techniques.	C112.5	R,U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty In-charge-Mr.S.Ramprasath AP/EEE &Dr.R.Vijay AP/EEE.

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Saranathan College of Engineering

II-ECE - 122

Tiruchirapalli

Internal Assessment Test - III		Date/ Session	10-06-2024	Marks	50
Course code	EC 3452	Course Title	Electromagnetic Fields		
Batch No.		Duration	90 mins	Academic Year	2023-2024
Year/	II	Semester/ Section	IV Sem A & B Sec	Department	ECE

Part – A- (Answer all the questions 10 x 2 = 20marks)

Q.No.	Questions	CO	Skills
1	In a circular loop conductor of radius 0.1m lies in the z=0 plane and has a resistance of 5Ω. Given B=0.2sin10^{3}t $\bar{a}_z$ Tesla. Find the induced emf.	C212.4	A,E, Az
2	If $\bar{D} = 20x\bar{a}_x - 15y\bar{a}_y + k\bar{a}_z\ \mu C/m^2$ and $\bar{B} = 2\bar{a}_y mT$ find the value of k to satisfy the Maxwell's equation for region $\sigma=0$, $\rho_v=0$.	C212.4	R,U
3	If $\bar{E} = 80\cos(6.277\times10^8 t - 2.092y)\bar{a}_z$ V/m, find displacement current density. Assume ϵ_r=600.	C212.4	A,E
4	Verify whether the fields $\bar{E} = 10\sin x\sin t\,\bar{a}_y\ V/m$ and $\bar{H} = \frac{10}{\mu_0}\cos x\cos t\,\bar{a}_z\ A/m$ satisfy Maxwell's equations in free space.	C212.4	A.E, R,U
5	Find the frequency at which conduction current density and displacement current density are equal in a medium with $\sigma = 4\times10^{-4}\Omega^{-1}/m$ and $\varepsilon_r = 80$.	C212.4	A,E
6	A plane TEM wave has a power density of 6.4 W/m^2 in a medium with ϵ_r=2 and μ_r =1. Find the value of E.	C212.5	A,E
7	In a homogeneous region where μ_r=1, ϵ_r=30, if the wavelength is 2.73m, determine ω and η.	C212.5	A,E
8	A plane wave travelling in air is normally incident on a block of paraffin with ϵ_r=2.2. Find the reflection coefficient and transmission coefficient.	C212.5	R,U,A,E
9	A forward travelling plane wave in free space is $E_x = \cos(4\pi\times10^7 t - \beta z)V/m$. Calculate the instantaneous Poynting vectors.	C212.5	A,E
10	State homogeneous vector Helmholtz equations.	C212.5	R,U

Part – B - (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Derive the Maxwell's equations in point form and integral form for time varying field.	C212.4	C, Az
	Or		
12	Given the retarded potentials, $V = x - v_0 t$ and $\bar{A} = \left(\frac{x}{v_0} - t\right)\bar{a}_y\ Wb/m$ where v_0 denotes the velocity of propagation, then determine (i) $\nabla \bullet \bar{A}$ (ii) $\bar{B}, \bar{H}, \bar{E}$ and $\bar{D}$ (iii) Also, Show that $\nabla \bullet \bar{A} = -\mu_0\varepsilon_0\frac{\partial V}{\partial t}$ in free space.	C212.4	A, E,Az
13	(a)Derive the Poynting vector for power flow in any medium using Poynting theorem. (b)A 2GHz uniform plane wave $\tilde{E}_i = 20e^{-j\beta z}\bar{a}_x\ V/m$ in free space is incident normally on a large plane, lossless dielectric slab (z > 0) having μ=μ$_0$ and ε=9ε$_0$. Determine the reflected wave $\tilde{E}_r$ and transmitted wave $\tilde{E}_t$	C212.5	A,E, Az
	Or		
14	Derive the uniform plane wave for lossless dielectric medium and free space medium.	C212.5	C, Az

Part – C- (Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	In Free space. $\bar{E} = 20\cos(\omega t - 50x)\bar{a}_y\ V/m$. Determine (i) $\bar{H}$ (ii) $\bar{J}_d$ (iii)ω	C212.4	A,E,AZ
	Or		
16	Derive the general wave equation and solutions for time varying field.	C212.4	R,U, AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering

Tiruchirappalli – 620012

II - ECE - 122

Internal Assessment Test - III		Date/ Session	05.06.2024/FN	Marks	50
Course code	EC3401	Course Title	Networks and Security		
Batch No.		Duration	90 mins	Academic Year	2023 – 2024/EVEN
Year	II	Semester/ Section	IV/A &B	Department	ECE

Part – A (20 Marks)

Answer all the Questions **(10x2=20 Marks)**

Q. No.	Questions	CO	Skills
1	List the security services in network.	C311.4	U
2	Why is Caesar cipher substitution technique vulnerable to a brute force cryptanalysis?	C311.4	R
3	What is the significance of Digital Signature?	C311.4	R
4	Differentiate Passive and Active attacks.	C311.4	U
5	What do you mean by cryptanalysis?	C311.4	R
6	Distinguish between Symmetry and Asymmetry key encryption.	C311.4	U
7	Differentiate between a combinational and a sequential Trojan.	C311.5	R
8	Compare invasive and noninvasive attack.	C311.5	U
9	What is Hardware security?	C311.5	R
10	Who are the potential adversaries to implant a hardware Trojan?.	C311.5	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain RSA algorithm and also perform encryption and decryption using RSA algorithm for the following p=7, q=11; e=17; M=8.	C311.4	R,U
	OR		
12	Explain AES algorithm with necessary diagrams.	C311.4	R,U
13	(i)Provide a brief description of a generic Trojan structure (ii) Provide an example of hardware Trojan in a cryptomodule.	C311.5	R,U
	OR		
14	Suppose an attacker is attempting to reverse engineer a device using a side-channel attack. What process should the attacker take to accurately obtain internal information about the device, and what side-channel analysis techniques should be used?	C311.5	R,U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain Secure Hash Algorithm with its functional structures.	C311.4	R,U
	OR		
16	Explain OSI Security Architecture in detail.	C311.4	R,U

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Saranathan College of Engineering

Tiruchirapalli

II-ECE-122

Internal Assessment Test - III			Date/Session	04.06.24 FN	Marks	50
Course code	EC3451	Course Title	Linear Integrated Circuits			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	II	Semester/Section	04 / A & B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	How is the classification of A/D converters carried out based on their operational features?	C212.4	R
2	Find the number of resistors required for an 8 bit weighted resistor D/A converter. Consider the smallest resistance is R and obtain other resistance values.	C212.4	C
3	What are the advantages of inverted R-2R (current type) ladder D/A converter over R-2R (voltage type) D/A converter?	C212.4	U
4	A 12 bit D/A converter has a resolution of 20mV/LSB. Find the full scale output voltage.	C212.4	C
5	Calculate the number of comparators required for realizing a 4 bit flash A/D converter.	C212.4	C
6	Define monotonicity,resolution and accuracy in data convertors	C212.4	U
7	Why is the monostable multivibrator circuit called time delay circuit and gating circuit?	C212.5	U
8	Why there is no phase shift provided in the feedback network in Wien-Bridge oscillator?	C212.5	A
9	Give the formula for period and frequency of oscillation in an op-amp astable circuit.	C212.5	R
10	Define duty cycle for a periodic pulse waveform.	C212.5	C

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	i) Explain the successive approximation type A/D converter (6m) ii) Narrate the functions of DAC switches (4m)	C212.4	U
	(OR)		
12	Explain Dual slope analog to digital converters.	C212.4	U
13	With neat diagram explain the operation of an astable multivibrators using OP-AMP	C212.5	AZ
	(OR)		
14	Explain the working of Wien bridge oscillator.	C212.5	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	With suitable diagram Explain the operation of triangular wave generator and derive the expression of frequency of oscillation	C212.6	U
	(OR)		
16	Explain ICL8038 Function generator and derive frequency of oscillation	C212.6	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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II - ECE - 122

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III		Date/Session	11.06.24/ FN	Marks	50
Course code	EC 3492	Course Title	Digital Signal Processing		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year/	II	Semester/Section	IV/A&B	Department	ECE

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	SSkills
1	What are the desirable characteristics of window ?	C302.3	R
2	What is meant by Gibbs phenomenon?	C 302.3	R
3	Compare Hamming window with Hanning window.	C302.3	R
4	Add +0.45 and -0.575 by two's complement addition.	C302.4	R
5	Write down the format of floating point number representation.	C302.4	U
6	Compare Fixed point with Floating Point arithmetic.	C302.4	R
7	The filter coefficient $H = -0.673$ is represented by sign-magnitude fixed point arithmetic. If the word length is $6 - bits$, compute the quantization error due to truncation.	C302.4	U
8	What is meant by Pipelining?	C302.5	R
9	What is meant by Adaptive filter?	C302.5	R
10	What are the different types of DSP Processor?	C302.5	U

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Using frequency sampling method, design a band pass filter with the following specifications, Sampling frequency $\boldsymbol{F = 8000Hz}$ Cut off frequencies $\boldsymbol{fc1 = 1000Hz and fc2 = 3000Hz}$. Determine the filter coefficients for N = 7	C 302.3	A,E
	OR		
12	Design a digital ideal Band Stop FIR Filter for the following specifications, $$H_d(e^{jw}) = \begin{cases} e^{-j5\omega}; for\ \lvert\omega\rvert \le \frac{\pi}{3} and\ \lvert\omega\rvert \ge \frac{2\pi}{3} \\ 0; \quad other\ wise \end{cases}$$ With N=7. Using Hamming Window.	C 302.3	A,E
13	Write a short note on Quantization Error. And also derive the expression for Steady state Noise power.	C 302.4	AZ,E
	OR		
14	Determine the variance of the round of noise at the output of cascade realization of the filter whose transfer function is given by	C 302.4	AZ, E

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	$H(z) = H_1(z).H_2(z)$ Where, $H_1(z) = \frac{1}{1-\frac{1}{2}z^{-1}}$; $H_2(z) = \frac{1}{1-\frac{1}{4}z^{-1}}$		

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	An LTI system is characterized by the difference equation, $y(n) = 0.87\,y(n-1) + x(n)$. Determine the limit cycle behavior and the dead band of the system, when $x(n) = 0$ *and* $y(-1) = 0.61$. Assume that the product is quantized to 4-bits by rounding	C 302.4	R,U
	OR		
16 .A	Consider the transfer function $H(z) = \frac{1}{1-0.94z^{-1}+0.64z^{-2}}$. Find the pole location and effect due to truncation to $3-bits$ (Excluding Sign bit)	C 302.4	A,E
16 .B	For the system with system function $H(z) = \frac{1+0.75z^{-1}}{1-0.4z^{-1}}$, draw the signal flow graph and find scale factor S_o to avoid overflow in the input adder.	C 302.4	

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name Of the Staffs: Dr.M.Padmaa/ Prof/ECE and G.Sivakannu/AP/ECE

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Saranathan College of Engineering,
Tiruchirapalli.

II-ECE-122

Internal Assessment Test - III		Date/ Session	6.6. 30.5.2024/FN	Marks	50
Course code	EC3491	Course Title	Communication Systems		
Batch No.		Duration	90 mins	Academic Year	2023 - 2024
Year	II	Semester/ Section	IV /ECE A & B	Department	ECE

Part – A- (Answer all the questions 10 x 2 = 20marks)

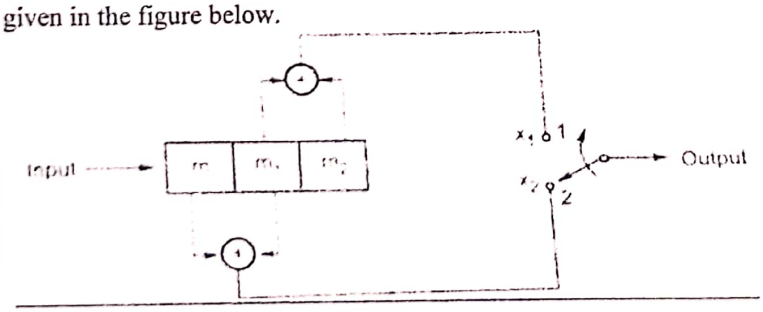
Q. No.	Questions	CO	Skills
1	What is meant by DPSK?	C214.4	R
2	Explain coherent detection?	C214.4	R, U
3	Write the expression for bit error rate for coherent binary FSK.	C214.4	U
4	Highlight the major difference between a QPSK & PSK signal	C214.4	U
5	Give the constellation diagram of QAM.	C214.4	R, U
6	What is EVM?	C214.4	U
7	Deduce the Hamming distance between 101010 and 010101. If the minimum Hamming distance of a (n, k) linear block code is 3, what is the minimum Hamming weight?	C214.3	E,A
8	The code vector [1110010] is sent, the received vector is [1100010]. Identify the Syndrome.	C214.3	E,A
9	What is meant by ISI?	C214.5	R
10	What are the advantages of optimum detection?	C214.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Compare all the digital modulation techniques.	C214.4	R,U,A
	Or		
12	Explain the geometric representation of signals.	C214.4	R,U
13	Explain DPSK transmitter and receiver in detail.	C214.4	R,U
	Or		
14	Explain the QPSK transmitter and receiver in detail.	C214.4	R,U

Part – C -(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Draw the code tree, Trellis code and state diagram of rate ½ convolutional encoder given in the figure below. 	C214.3	E,A
	Or		
16	For a systematic (6,3) linear block code G=[100010; 001101; 011110],(i)Solve for all the code vectors (ii) Determine error correcting capacity. (iii)Predict minimum hamming weight.	C214.3	E,A

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Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	03/06/24 - FN	Marks	50
Course code	GE3451	Course Title	Environmental Sciences & Sustainability			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section		Department	Common to all	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Mention few characteristics of development.	5	U
2.	Define sustainable development.	5	AZ
3.	What are the causes of climate change?	5	U
4.	List out the salient features of sustainable development.	5	A
5.	Give any three advantages of carbon credit.	6	R
6.	What are the benefits of zero waste?	6	U
7.	Mention about material life cycle assessment.	6	R
8.	What are the merits of non-conventional energy sources?	6	U
9.	Give a note on carbon cycle with its source.	6	U
10.	What is Green engineering? Give two examples.	6	R

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11.	With a case study, elaborate on the achievement of sustainability from the unsustainable level. (10)	5	AZ
	Or		
12.	Enumerate the goals of sustainable development. (10)	5	R
13.	What do you mean by Environmental Impact Analysis? Discuss the objectives, benefits and process of EIA? (10)	6	A
	Or		
14.	With suitable examples, explain on the practical implementation of sustainable transports with its advantages. (10)	6	U
15.	What is carbon sequestration? Discuss the type and merits of carbon sequestration. (10)	6	R
	Or		
16.	Comment on sustainable urbanization with rules, pillars and advantages (10)	6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.17th April 2024

Circular

Third Internal Assessment Test for Third Year (6th Sem.) for B.E. / B.Tech., Classes will commence from 22nd April 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
T H I R D - I A Test for Third Year (6th Sem.) _ April _ May 2024

Year: Third Sem. 6th

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
22.4.2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing		CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer		CCW331 - Business Analytics	CCS365 - Software Defined Networks
23.4.2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3601 - Protection and Switchgear	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
24.4.2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	EE3602 - Power System Operation and Control	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
25.4.2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	OCS352 - IOT Concepts and Applications	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
29.4.2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3011 - Multilevel Power Converters	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
30.4.2024	CCS341 - Data Warehousing		EE3020 - Smart System Automation		CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	
2.5.2024							CE3602 - Structural Analysis II		

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.29th May 2024

Circular

Third Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 3rd June 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

After IA Test coaching class will be conducted for next day IA test subject.

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

Third IA Test for Second Year (4th Sem.) _ June 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
3rd June 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
4th June 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	IT3401 - Web Essentials	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	CS3452 - Theory of Computation
5th June 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AL3451 - Machine Learning	CS3492 - Database Management System	AL3452 - Operating Systems
6th June 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3492 - Data Base Management System	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	AD3391 - Database Design and Management
10th June 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	CS3451 - Introduction to Operating System	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
11th June 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3491 - Artificial Intelligence and Mechine Learning	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

Third IA Test for First Year (2nd Sem.) _ June 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
3rd June 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
4th June 2024	Batch - 1 ---------(MA3251) Batch - 2 ----------PH3256 / PH3254 / PH3201 / PH3255						
5th June 2024	Batch - 1 ---------- PH3256 / PH3202 / PH3251 Batch - 2 ----------(MA3251)						
6th June 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation
7th June 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
10th June 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Batch - 1 - AIDS (A Sec) , CSE (A & B Sec), AIML, EEE, Mech.,
Batch - 2 - AIDS (B Sec) , IT, CSBS, ECE (A & B Sec), Civil, ICE

Principal

(Finalone)

Saranathan College of Engineering
Tiruchirapalli – 12

21 March 2024

Circular

Second Internal Assessment Testfor Third Year (6th Sem.)& Final Year (8th Sem.) for B.E./B.Tech., Classes will commence from 25thMarch 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Third Year (6th Sem.) _ April 2024

Year: Third **Sem. 6th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
25th March 2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing	EE3601 - Protection and Switchgear	CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer	CE3602 - Structural Analysis II	CCW331 - Business Analytics	CCS365 - Software Defined Networks
26th March 2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3602 - Power System Operation and Control	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
27th March 2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	OCS352 - IOT Concepts and Applications	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construccion Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
28th March 2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	EE3011 - Multilevel Power Converters	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
1st April 2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3020 - Smart System Automation	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
2nd April 2024	CCS341 - Data Warehousing				CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Final Year (8th Sem.) _ April 2024

Year: Final Year **Sem. 8th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil
25th March 2024							
26th March 2024							
27th March 2024							GE8076 - Professional Ethics In Engineering
28th March 2024							CE8020 - Maintanance, Repair and Rehabilation of Structures
1st April 2024							
2nd April 2024							

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th April 2024

Circular

Second Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 29th April 2024 (MONDAY) as per the time table attached.

-Test Duration-

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members.

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

II [redacted] IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
29th April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
30th April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
2nd May 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
3rd May 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
4th May 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
6 th May 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

II IA Test for Second Year (4th Sem.) _ April 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
29th April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
30th April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3492 - Data Base Management System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
2nd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4th April 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3491 - Artificial Intelligence and Mechine Learning	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	IT3401 - Web Essentials	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
7th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3451 - Introduction to Operating System	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th Feb"2024

Circular

First Internal Assessment Test for Third Year (6th Sem.) B.E./B.Tech., Classes will commence from 26th February 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
FIRST IA Test_for Third Year B.E./B.Tech., _ February / March 2024

Year: Third Year

Date /Branch	26.2.2024	27.2.2024	28.2.2024	29.2.2024	2.3.2024	4.3.2024
CSE	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded Systems and IOT	CCW331 - Business Analytics	CCS334 - Big Data Analytics	CCS336 - Cloud Services Management	CCS341 - Data Warehousing
ECE	CEC349 - RFID System Design & Testing	OEE351 - Renewable Energy System	CEC354 - Software Defined Networks	CS3491 - Artificial Intelligence and Machine Learning	ET3491 - Embedded Systems and IOT Design	
EEE	EE3601 - Protection and Switchgear	EE3602 - Power System Operation and Control	OCS352 - IOT Concepts and Applications	EE3011 - Multilevel Power Converters	EE3020 - Smart System Automation	
IT	CCS356 - Object Oriented Software Engineering	CCS366 - Software Testing and Automation	CCS354 - Network Security	CCS335 - Cloud Computing	CCS334 - Big Data Analytics	
ICE	EI3651 - Industrial Automation Systems	CIC341 - Electric Vehicle Technology	CIC343 - Instrumentation in Petrochemical Industry	CIC340 - Analytical Instrumentation	CIC339 - Fibre Optics Instrumentation	EI3652 - Introduction to Industrial Processes, Measurement and Control
Mech.,	CME386 - Gas Dynamics and Jet Propulsion	CME384 - Power Plant Engineering	CME380 - Automobile Engineering	ME3691 - Heat and Mass Transfer	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	
Civil	CE3602 - Structural Analysis II	AG3601 - Engineering Geology	CE3013 - Advanced Construction Techniques	CE3601 - Design of Steel Structural Elements	CE3009 - Construction Equipment and Machinery	CCE332 - Environmental Health and Safety
CSBS	CCW331 - Business Analytics	CCS356 - Object Oriented Software Engineering	CCW332 - Digital Marketing	CCS360 - Recommender Systems	CCS346 - Exploratory Data Analysis	CW3007 - IT Project Management
AIDS	CCS365 - Software Defined Networks	CS3691 - Embedded System & IOT	CCS372 - Virtualization	CCW332 - Digital Marketing	CCS336 - Cloud Service Management	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21 March 2024

Circular

First Internal Assessment Test for First Year (2nd Sem.) & Second Year (4thSem.)B.E./B.Tech., Classes will commence from 1st April 2024(MONDAY) as per the time table attached.

Test Duration

~~9.15 am to 10.45 am (1 ½ Hours)~~

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rdHour

11.50 a.m. – 12.45p.m. – 4thHour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

First IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
1st April 2024	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology
2nd April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
3rd April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
4thApril 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
5th April 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
6th April 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
8th April 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

First IA Test for Second Year (4th Sem.) _ April 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
1st April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	CE3401 - Applied Hydraulics Engineering	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
2nd April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3451 - Introduction to Operating System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3404 - Soil Mechanics	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
3rd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3492 - Data Base Management System	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4thApril 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3452 - Theory of Computation	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3402 - Strength of Materials	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	CS3491 - Artificial Intelligence and Mechine Learning	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3403 - Concrete Technology	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
8th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	IT3401 - Web Essentials	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	GE3451 - Environmental Sciences and Sustainability	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.30.10.2023

Circular

Third Internal Assessment Test for Third Year (5th Sem.) & Final Year (VII Sem.) B.E./B.Tech., Classes will commence from 2nd November 2023 (THURSDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS NOVEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
2nd November 2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control		CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th November 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE301-Power Electronics for Renewable Energy Systems	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
6th November 2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th November 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	
8th November 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
9th November 2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation	ME3592-Metrology and Measurements	CE3025-Airports and Harbours	CCS335-Cloud computing	CCS367-Storage Technologies

Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS _ NOVEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
2nd November 2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th November 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
6th November 2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	GE8073-Fundamentals of Nanoscience	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th November 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
8th November 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9th November 2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	EI8091-Instrumentationin Petrochemical Industries	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.27.09.2023

Circular

Second Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 3rd October 2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 3rd Hour

11.50 a.m. – 12.45 p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS OCTOBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
3rd October2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th October 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
5th October2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th October 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	CCS367-Storage Technologies
9th October 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
10th October2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS335-Cloud computing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS _OCTOBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
3rd October2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th October 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
5th October2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-Instrumentationin Petrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th October 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
9th October 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
10th October2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24.8.2023

Circular

First Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 29.8.2023 as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – First Hour

11.50 a.m. – 12.45 p.m. – Second Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
29.8.2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS335-Cloud computing	CS3691-Embedded System and IOT
31.8.2023	CS3501-Compiler Design	CEC332-Advanced Digital Signal Processing	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	CCS334-BigData Analysis	CW3551-Data and Information Security
2.9.2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	AD3501-Deep Learning	CCS335-Cloud Computing
4.9.2023	CS3551-Distributed Computing	CEC331-4G/5G Communication Networks	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CW3551-Data and Information Security	CCS367-Storage Technologies
5.9.2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CS3551-Distributing Computing	CW3501-Fundamentals of Management
9.9.2023	CCS375-Web Technologies	EC3501-Wireless Communication	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS341- Data Warehousing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
29.8.2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
31.8.2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
2.9.2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-InstrumentationinPetrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
4.9.2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
5.9.2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9.9.2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Second Year FIRST IA TEST FOR I AND II Year _October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment test – III			Date/Session	06.06.2024 / FN	Marks	50
Course code	BE3254	Course Title	ELECTRICAL AND INSTRUMENTATION ENGG.			
Batch No.		Duration	90 mins	Academic Year	2024	
Year	I[st]	Semester/Section	II[nd] /A & B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Mention the components present in the data acquisition system.	C112.3	R,U
2	What are the starting methods of Synchronous motor?	C112.3	R
3	Differentiate C.T. and P.T.	C112.4	AZ
4	Compare MC and MI Instruments.	C112.4	AZ
5	Draw the block diagram of functional elements of measuring system.	C112.4	U
6	What are the types of torques included in the indicating instruments?	C112.4	U,R
7	Define Calibration.	C112.4	AZ
8	Why earthing is important in any power system? Mention some of its types.	C112.5	U
9	Write a short note on MCB and MCCB?	C112.5	A,R
10	What are the advantages and disadvantages of Fuse?	C112.5	U,R

Part – B

Q. No.	Questions	CO	Skills
11	Describe the construction and working of PMMC instrument. Derive the equation for deflection if the instruments are spring controlled.	C112.4	U,E
	Or		
12	Explain the working and types of AC starters. (Any 4)	C112.4	R,A
13	With a neat Block diagram, briefly explain about the Digital storage oscilloscope.	C112.4	A,U
	Or		
14	Explain 3 phase Power measurement using two watt meter measurement method with necessary diagram and expressions.	C112.4	E,AZ
	Part-C		
15	Using a single line diagram, describe the electrical energy transmission and distribution system?	C112.5	AZ,A
	Or		
16.	Explain the functions of Earthing and the various Earthing techniques.	C112.5	R,U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty In-charge-Mr.S.Ramprasath AP/EEE &Dr.R.Vijay AP/EEE.

Saranathan College ofEngineering

Tiruchirappalli -620012

Internal Assessment Test – III			Date/Session	06/06/2024/FN	Marks	50
Course code	BE3252	Course Title	Basic Electrical, Electronics & Instrumentation Engg.			
Batch No.		Duration	90 Mins	AcademicYear	2022-2023	
Year	I	Semester	II	Department	Civil	

Part – A (10×2=20 Marks)

Q. No.	Questions	CO	Skills
1	Two inductors 0.4 H and 20.6 H are connected in parallel. If this combination is connected in series with an inductor of inductance 0.76 H. what is the equivalent inductance of the circuit.	C112.4	U
2	What are the classifications of resistors?	C112.4	R
3	What is meant by depletion layer?	C112.4	U
4	Define forbidden energy gap.	C112.4	AZ
5	What is meant by zener effect?	C112.4	AZ
6	Define harmonics in electrical system	C112.5	U
7	What is meant by ripple factor and PIV in rectifier?	C112.5	U
8	Distinguish between active and passive sensor	C112.6	U
9	Mention the applications of thermal imager.	C112.6	R
10	List out the applications of LVDT	C112.6	R

Part – B (2×10=20 Marks)

Q. No.	Questions	CO	Skills
11.	Discuss the different modes of operation of SCR with the help of its static V-I characteristics.	C112.4	AZ
	OR		
12.	Describe the working of PN junction diode with neat diagrams. Also explain its V-I characteristics	C112.4	AZ
13.	Write a short note on Thermal imager.	C112.6	E, AZ
	OR		
14.	Explain the construction and working principle of LVDT with neat diagram.	C112.6	R,U

Part – C (1×10=10 Marks)

Q. No.	Questions	CO	Skills
15.	Explain the operation of full wave bridge rectifier with neat sketch and also derive the expression for Average voltage and RMS voltage.	C112.5	E,AZ
	OR		
16.	Draw and explain the operation of full bridge inverter with neat sketch and also derive the expression for RMS voltage and current.	C112.5	E,AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty In charge: P. Ramesh Babu/AP/EEE

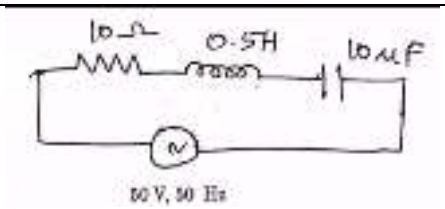
Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	06.06.2024/FN	Marks	50
Course code	BE3251	Course Title	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING			
Batch No.		Duration	90 min	Academic Year	2023-2024	
Year	I	Semester/ Section	II / A&B	Department	AI&DS, AIML, CSBS, CSE, IT & MECH	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Active power and Apparent power.	C113.2	AZ
2	Write the equation for 25 cycles sine wave current having rms value of 30A.	C113.2	R
3	Define slip and slip speed.	C113.3	U
4	Write the emf equation of transformer.	C113.3	R
5	What is the working principle of DC Motor?	C113.3	R
6	A four-pole lap wound DC generator rotates at the speed of 1500 rpm has flux of 0.4mWb and the total no. of conductors are 1000. Find the generated emf.	C113.3	U
7	Differentiate step up transformer and step-down transformer.	C113.3	U
8	Mention the functional elements of measuring systems.	C113.6	R
9	What is calibration? Mention its types.	C113.6	U
10	Mention the various types of errors present in measuring devices.	C113.6	U

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q.No.	Questions	CO	Skills
11	A sinusoidal voltage V=200sin314t is supplied to a 10Ω resistor. Find the (i) frequency, (ii) rms voltage, (iii) rms current and (iv) power dissipated as heat.	C113.2	U& R
	Or		
12	 Determine the total impedance, current, phase angle and voltage across each element.	C113.2	U& R
13	Explain the construction and working of DC generator.	C113.3	R
	Or		
14	Explain the construction and working principle of Single-Phase Transformer.	C113.3	U

Part – C (1 x 10 = 10marks)

15	Draw the functional block diagram of Data acquisition system and explain the functions of each component.	C113.6	AZ
	Or		
16	Describe the construction and working principle of PMMC instrument. Also derive its torque equation.	C113.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty Name: Mr.B.Paranthagan, Dr.M.V.Suganyadevi, Mr.R.Sridhar Mrs.C. Pearlinekamalini, Dr.P.Ram Prakash, Mr.S.Vigneshwaran, Dr.M.Marimuthu, & Mr.R.Balasubramanian

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date	07-06-2024	Marks	50
Course code	EE 3251	Course Title	ELECTRIC CIRCUIT ANALYSIS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/Section	II / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define resonance.	C113.5	R
2	Define mutual inductance.	C113.5	R
3	State Dot rule to find aiding and opposing of flux in inductance circuits.	C113.5	U
4	Find the Resonant Frequency of series RLC circuit	C113.5	R
5	Define quality factor.	C113.5	R
6	Define time constant of RL circuit.	C113.5	E
7	Define transient response.	C113.4	E
8	Define power factor.	C113.4	E
9	Write the expression for balanced power factor in balanced three phase circuits	C113.6	R
10	Define PF and Reactive power.	C113.6	U

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Derive the expression for balanced star connected load three phase system.	C113.5	R
or			
12	Derive the expression for Two-Watt meter power measurement method.	C113.5	E
13	Derive the formula for resonance frequency in a series RLC circuit.	C113.6	E
Or			
14	Derive the Expression for BW and half power frequencies	C113.6	E
15	a. Derive the formula for resonance frequency in a series RLC circuit. b. Also calculate the resonant frequency and quality factor of a coil for the series circuit consisting of R= 10 ohm, L= 0.1 H and C= 10 micro F.	C113.4	E
or			

16	a. Derive the expression for mutual inductance. b. Two coils connected in series have an equivalent inductance of 0.4 H when connected in aiding and 0.2 H when connected in opposing. Calculate the value of mutual inductance of the coil.	C113.4	E

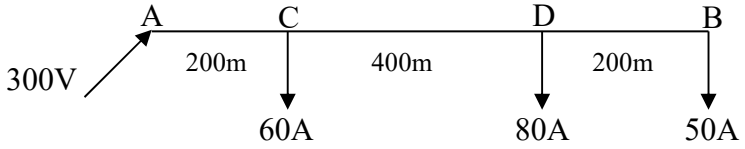
Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty in charge : Ms.N.Gayathri AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	04.06.2024 /FN	Marks	50
Course code	EE3401	Course Title	TRANSMISSION AND DISTRIBUTION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV / A	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define natural loading or surge impedance loading (SIL) of a line.	C212.2	R
2.	Write the expressions for A, B, C and D constants of medium transmission line using nominal-π method.	C212.2	R
3.	Define visual critical disruptive voltage.	C212.2	A
4.	What is Ferranti effect?	C212.2	R
5.	How are transmission lines classified based on distance?	C212.2	R
6.	What are the disadvantages of Corona?	C212.2	A
7.	What is a feeder?	C212.6	R
8.	Write the expression for power loss in a DC distributor with uniform loading when it is fed from one end.	C212.6	R
9.	Find the voltage drop in the section CD of the given 2 wire DC distributor 800m long fed at one end as shown in the figure below. The resistance of one conductor is 0.4Ω/km. 	C212.6	A
10.	Write the equation for finding the point of minimum potential when a 2 wire uniformly loaded DC distributor is fed from both ends with unequal voltages.	C212.6	R

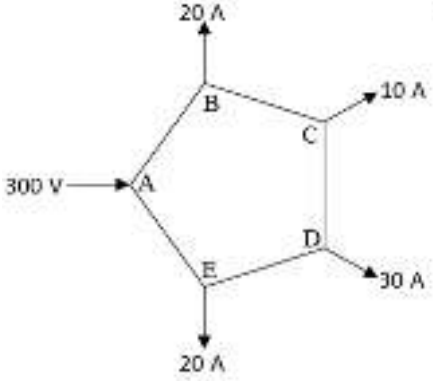
Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	A balanced 3 phase transmission load of 30 MW is supplied at 132 kV and 0.85 pf lagging using 80 km length transmission line. The impedance of a single conductor is (20+j52) ohms and the total phase-neutral admittance is 315×10^{-6} Siemen. Using nominal T method determine A, B, C and D constants of the line, sending end voltage and regulation of the line.	C212.2	A
	OR		
12.	Derive the sending end voltage and current for a long transmission line with necessary diagram.	C212.2	R
13.	Derive voltage regulation, power factor and transmission efficiency of short transmission line with necessary diagram.	C212.2	R

	OR		
14.	A 3-phase, 50 Hz transmission line 100 km long delivers 20MW at 0.9 pf lagging at 110 kV. The resistance and reactance of the line per phase per km are 0.2 ohms and 0.4 ohms respectively. The capacitive admittance is 2.5 x 10^{-6} siemens/km/phase. Calculate (i) The voltage at the sending end and (ii) Efficiency of transmission. Use nominal T method.	C212.2	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	A ring main ABCDEA is fed from 300 V supply as shown in following figure. The resistance of each section AB, BC, CD, DE and EA is 0.2 Ω per 100 m. The loads are tapped off as shown. Arrange the voltages at the load points B (V_B), C (V_C), D (V_D) and E (V_E) in ascending order. [AB = 300m, BC = 400m, CD = 400m, DE = 500m and EA = 300m].  	C212.6	E
	OR		
16.	Prove that a DC distributor fed from one end with uniform loading can be considered as a DC distributor fed from one end with concentrated load at its midpoint.	C212.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: B.Paranthagan, ASP-EEE

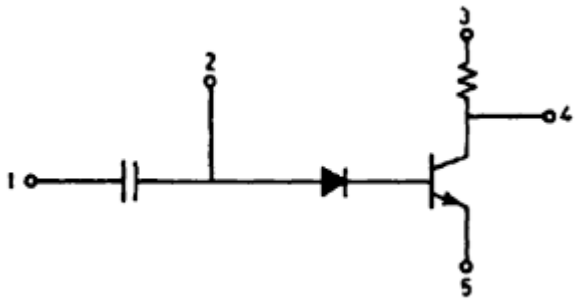
Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	05.06.2023/FN	Marks	50
Course code	EE3402	Course Title	Linear Integrated Circuits			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section	IV	Department	EEE	

Part – A
(Answer all the questions (10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Mention the various advantages of Integrated Circuits over discrete circuits.	C213.1	R
2	List the various steps involved in monolithic IC fabrication.	C213.1	R
3	Mention the properties of silicon di-oxide.	C213.1	R
4	What are the advantages of thin film resistor over diffused resistor?	C213.1	R
5	Draw the circuit diagram of Mono stable multi-vibrator using 555 timer.	C213.4	R
6	An astable 555 Oscillator is constructed using the following components. R1 = 1kΩ, R2 = 2kΩ and capacitor C = 10uF. Calculate the output frequency and duty cycle.	C213.4	A,AZ
7	What is series voltage regulator?	C213.5	R
8	How current boosting is achieved in 723 regulator?	C213.5	U
9	What is SMPS?	C213.5	R
10	What are the applications of fixed voltage regulators?	C213.5	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about the epitaxial growth, masking, etching in IC Fabrication process.	C213.1	R
	Or		
12	With respect to BJT based circuit given below, explain the various steps to implement the circuit into a monolithic IC. 	C213.1	A,R,AZ
13	With necessary diagrams, explain the operation of NE566 VCO IC. Derive the expression for voltage to frequency conversion factor.	C213.4	R,U
	Or		
14	With necessary diagrams, explain the operation of NE565 PLL IC. Derive the expression for capture range.	C213.4	R,U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q.No.	Questions	CO	Skills
15	i) Explain AD623 Instrumentation Amplifier and its application as load cell weight measurement. ii) Explain about IC voltage regulators –LM78XX.	C213.5	U
	Or		
16	Explain in detail about ICL 8038 Function Generator.	C213.5	U

Name of the faculty : Mr.A.Kesavan, Asst.Prof (ECE)

Bloom's Skills: *Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question*

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test – III			Date/Session	10.6.2024/FN	Marks	50
Course code	EE 3404	Course Title	Microprocessor & Microcontroller			
Batch No.		Duration	1 ½ hours	Academic Year	2023-2024/EVEN	
Year	II	Semester	04	Department	EEE	

Part – A (20 Marks)

I. Answer all the questions **(10x2=10 Marks)**

Q. No.	Questions	CO	Skills
1.	State the addressing modes of 8051.	C213.4	U
2.	Write the applications of servomotors.	C213.4	R
3.	Define serial communication in microcontroller.	C213.4	U
4.	Draw the block diagram for temperature control using microcontroller.	C213.4	U
5.	Define IDE.	C213.4	U
6.	Write a program to add two numbers using 8051 microcontroller.	C213.4	R
7.	Define interrupt in microcontrollers.	C213.5	R
8.	Mention about the I/O ports available in PIC microcontroller.	C213.5	R
9.	Write any two instruction of PIC microcontroller.	C213.5	A
10.	Mention the advantages of PIC microcontroller.	C213.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the Architecture of PIC 16 microcontroller.	C213.5	U
	Or		
12	Discuss addressing modes of PIC 16 microcontroller.	C213.5	U
13	Explain the Functional block diagram of 8051 microcontroller.	C213.4	R
	Or		
14	Short notes on timers and interrupt controller of 8051.	C213.4	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Discuss the interfacing and control operation of stepper motor using 8051	C213.4	U
	Or		
16	Discuss the interfacing of keyboard and LED display using microcontroller.	C213.4	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: Dr.M.Marimuthu

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - III			Date/ Session	11.06.24/FN	Marks	50
Course code	EE3405	Course Title	Electrical Machines II			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year	II	Semester/ Section	IV/A	Department		EEE

Part – A

(Answer all the questions 10 × 2 = 20 Marks)

Q. No.	Questions	CO	Skills
1	Define 'slip' in induction motor.	C216.3	R
2	Why are the slots on the cage rotor usually skewed?	C216.3	U
3	Calculate the slip and speed of a 6 pole induction motor, if the frequency of the stator voltage is 50 Hz and the frequency of the e.m.f induced in the rotor is 2 Hz.	C216.3	AZ
4	Why V/f ratio should be maintained constant?	C216.4	AZ
5	Define slip power in induction motor.	C216.4	R
6	List out the methods of braking of 3 phase induction motor.	C216.4	R
7	Why single phase induction motor is not self starting? Mention any one method of starting.	C216.5	AZ
8	Draw the equivalent circuit of a single phase induction motor at running condition.	C216.5	A
9	State the limitations of shaded pole motors.	C216.5	AZ
10	Define magnetic levitation.	C216.5	R

Part – B (Answer all the questions 2 × 10 = 20 Marks)

Q. No.	Questions	CO	Skills
11.	Explain the construction, working principle and parts of three phase induction motor.	C216.3	U, R
	OR		
12.	Sketch and explain the torque slip characteristics of the 3 phase induction motor. Show the stable region in the graph.	C216.3	U, AZ
13.	Discuss the cascade operation of induction motors to obtain variable speed.	C216.4	A, AZ

	OR		
14.	Briefly discuss the operation of Static Kramer and Static Scherbius drives with neat sketch.	C216.4	A, AZ

Part – C (Answer all the questions 1 × 10 = 10 Marks)

Q. No.	Questions	CO	Skills
15.	Discuss the concept of double field revolving theory with neat sketch.	C216.5	AZ
	OR		
16.	Describe the construction and working principle of the following single phase machines: (i) Shaded pole motor (5 Marks) (ii) Hysteresis motor (5 Marks)	C216.5	U, R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff-in-charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test - III			Date/ Session	23.04.2024/FN	Marks	50
Course code	EE3601	Course Title	Protection and Switchgear			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A & B	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is a numerical relay?	311.4	R
2	List some of the advantages of numerical relay.	311.4	U
3	What are the methods of arc interruption?	311.5	R
4	Define rate of rise of restriking voltage (RRRV).	311.5	R
5	What are the factors on which the arc resistance depend?	311.5	R
6	Define first pole to clear factor.	311.5	U
7	What is meant by rupturing capacity of a circuit breaker?	311.6	R
8	Differentiate MOCB from Bulk oil circuit breaker.	311.6	U
9	What are the different types of air blast circuit breakers?	311.6	R
10	What are the advantages of SF_6 circuit breakers?	311.6	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain the working of Numerical distance protection with neat block diagram.	311.4	R
	OR		
12	Explain the operation of numerical overcurrent relay with the help of a block diagram	311.4	R
13	Discuss in detail about the Cassie's theory and Slepian's theory of arc interruption in circuit breakers.	311.5	R
	OR		
14	Discuss in detail about the current interruption in AC circuit breakers.	311.5	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	With neat sketch describe the construction and operation of air break circuit breakers.	311.6	R
	OR		
16	Classify Bulk oil Circuit breakers. Explain in detail the operation of different types of self blast oil circuit breakers with necessary diagrams.	311.6	R

Name of the Faculty: Dr.C.Krishnakumar Prof/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	23/04/2024	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Enumerate the environmental benefits of biomass resources.	311OE15.4	U
2	Draw the aerobic digestion of organic waste by 3 stage biochemical processing techniques.	311OE15.4	U
3	Name the elements of biomass.	311OE15.4	R
4	What is pyrolysis process?	311OE15.4	R
5	What are primary and secondary fuel cells?	311OE15.5	U
6	Define geothermal gradient.	311OE15.5	R
7	Identify the environmental impact of geothermal energy extraction.	311OE15.5	U
8	What is meant by OTEC?	311OE15.6	R
9	Define tidal range.	311OE15.6	R
10	Why hydrogen is considered as a secondary energy source?	311OE15.6	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Sketch and describe the types of bio-mass gas generation plant. Mention 4 uses of the biogas produced.	311OE15.4	A
	Or		
12	With neat diagram explain (i) Fermentation (ii) Liquefaction processes	311OE15.4	A
13	Discuss the following: i. OTEC open cycle. ii. OTEC closed (Anderson) cycle	311OE15.5	A
	Or		
14	Explain the essential features of a hydrogen–oxygen cell. Draw a suitable diagram of this cell and give the reactions took place at the electrodes.	311OE15.5	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	With neat diagram explain any two types of gasifiers	311OE15.6	A
	Or		
16	What is geothermal energy? Explain the working principle of a geothermal power plant with the help of a neat sketch.	311OE15.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash, Mr.R.Sridhar

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - III			Date/ Session	29/04/2024	Marks	50
Course code	EE3011	Course Title	Multilevel Power Converters			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	III	Semester/ Section	VI	Department		EEE

Part – A

(Answer all the questions 10 × 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Why should the net charge variation in flying capacitor be null?	C312.4	U
2	What is the disadvantage of FCMC?	C312.4	AZ
3	Mention the features of FCMC.	C312.4	AZ
4	Write the equation for the output voltage of n-level FCMC and the average voltage across each capacitor.	C312.3	A
5	List the modulation techniques used for FCMC.	C312.4	R
6	How are the reduced switch count multilevel converter topologies classified?	C312.5	AZ
7	Define fault tolerant ability of MLI.	C312.5	U
8	List the merits of cascaded basic blocks multilevel inverter (Series connection fundamental blocks inverter (SCFBI) based MLI).	C312.5	AZ
9	What are the drawbacks of T-type multilevel inverter?	C312.5	AZ
10	What are the factors considered while choosing the modulation strategy for multilevel converters?	C312.5	A

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Explain how the charge balance is achieved in FCMC using phase-shifted pulse width modulation (PSPWM) technique.	C312.4	AZ, E
	OR		
12.	Discuss the charge balance on the flying capacitor using four-level FCMC topology.	C312.4	AZ, E
13.	With neat diagram and switching table, explain the working of 7-level packed U-cell multilevel inverter.	C312.5	A, E
	OR		

14.	Discuss the working of multilevel module based multilevel inverter with neat diagram. Also write its advantages and disadvantages.	C312.5	A, E

Part – C Answer all the questions

Q. No.	Questions	CO	Skills
15.	Develop the dynamic model of a 3-level FCMC to analyse the dynamic voltage balance.	C312.4	AZ, E
	OR		
16.	Explain how the tuned balancing network helps to achieve voltage balance in dynamic condition.	C312.4	AZ, E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	30/04/2024	Marks	50
Course code	EE3020	Course Title	Smart automation systems			
Batch No.		Duration	90 mins	Academic Year	2024	
Year	III rd	Semester/ Section	VI / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No	Question	CO	Skills
1	What is smart medical devices?	C315OE4V35.5	AZ
2	How does a gyroscope sensor work?	C315OE4V35.5	AZ
3	What is the role of signal processing in wearable systems?	C315OE4V35.5	U
4	Can body heat generate electricity	C315OE4V35.5	A
5	What is the difference between eHealth and mHealth	C315OE4V35.5	U
6	What are the Laws of the robotics?	C315OE4V35.6	AZ
7	What is a robot?	C315OE4V35.6	U
8	What is AI? Why do we implement AI in the robots?	C315OE4V35.6	U
9	What are various types of sensors used in the robotics?	C315OE4V35.6	R
10	What is the standard form of DOF?	C315OE4V35.6	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q.No	Questions	CO	Skills
11	With a neat diagram explain the architecture of BAN	C315OE4V35.5	A
	Or		
12	Write short notes on system security and reliability for wearable technology	C315OE4V35.5	U
13	Explain about a) Smart fabric and interactive textile configuration b) Sensor over sport equipment.	C315OE4V35.5	AZ
	Or		
14	Design a Heart rate monitoring system using MAX30102 sensor for remote storage.	C315OE4V35.5	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No	Questions	CO	Skills
15	a) Differentiate between Repeatability and Accuracy of a robotic manipulator. b) Give any two application of robots in the field of medicine.	C315OE4V35.6	A
	Or		
16	Classify robots according to the coordinates of motion. With a sketch and an example, Explain the features of each type.	C315OE4V35.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In charge: S.Ramprasath /AP/EEE/SCE

Saranathan College of Engineering
Tiruchirappalli-620 012

Internal Assessment Test - III			Date/ Session	24.04.2024	Marks	50
Course code	EE3602	Course Title	POWER SYSTEM OPERATION AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	VI / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Define base point and participation factor.	C412.4	A
2.	What is meant by scheduled reserve?	C412.4	R
3.	Compare unit commitment and economic dispatch.	C412.4	R
4.	What are the assumptions made in dynamic programming problem?	C412.4	AZ
5.	What are all the points to be noted for an economic load dispatch including transmission losses?	C412.4	AZ
6.	List some important control system functions	C412.5	R
7.	Draw the block diagram of PMU with details.	C412.5	R
8.	What are the different operating states of a power system?	C412.6	A
9.	Define state estimation?	C412.6	AZ
10.	What are the functions of EMS?	C412.6	AZ

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	There are three thermal generating units which can be committed to take the system load. The fuel cost data and generation operating unit data are given below: $F1 = 392.7 + 5.544\ P_1 + 0.001093\ P_1^2$ $F2 = 217 + 5.495\ P_2 + 0.001358\ P_2^2$ $F3 = 65.5 + 6.695\ P_3 + 0.004049\ P_3^2$ P 1 , P 2 , P 3 in MW Generation limits: $150 \le P_1 \le 600$ MW;$100 \le P_2 \le 400$; $50 \le P_3 \le 200$ MW There are no other constraints on system operation. Obtain an optimum unit commitment table. Adopt Brute force enumeration technique. Show the details of economic schedule and the total costs of operation for each feasible combination of units for the load level of 900.	C412.4	U, A
	OR		
12.	**The following are data pertaining to three units in a plant.** **Unit 1: Min. = 150 MW; Max. = 600 MW** **$C_1 = 5610 + 79.2\ P_1 + 0.01562\ P_1^2$ Rs / h** **Unit 2: Min. = 100 MW; Max. = 400 MW** **$C_2 = 3100 + 78.5\ P_2 + 0.0194\ P_2^2$ Rs / h** **Unit 3: Min. = 50 MW; Max. = 200 MW** **$C_3 = 936 + 95.64\ P_3 + 0.05784\ P_3^2$ Rs / h** **What unit or combination of units should be used to supply a load of 550 MW most economically?**	C412.4	U, A
13.	Explain the hardware components and functional aspects of SCADA system using a fundamental block diagram	C412.5	U
	OR		
14.	Draw and explain the state transition diagram of a power system showing different sets of operating states classified according to security level.	C412.5	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	The transmission loss coefficients B_{mn} expressed in MW^{-1} of a power system network having three plants are given by $B = \begin{bmatrix} 0.0218 & -0.0007 & -0.0001 \\ -0.0007 & 0.0012 & -0.0003 \\ -0.0001 & -0.0003 & 0.0015 \end{bmatrix}$ Three plants supply powers of 100 MW, 200 MW and 300 MW respectively into the network. Calculate the transmission loss and the incremental transmission losses at the plants.	C412.4	AZ
	OR		
16	The fuel inputs per hour of plants 1 and 2 are given as F1 = $0.2P_1^2$ +$40P_1$ +120*Rs/hr.* F2 = $0.25P_2^2$ + $30P_2$+150*Rs/hr.* Calculate the economic operating schedule and the corresponding cost of generation. The maximum and the minimum loading on each unit are 100MW and 25MW. Assume the transmission losses are ignored and the total demands 180MW. Also determine the saving obtained if the load is equally shared by both the units.	C412.4	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Saranathan College of Engineering

Tiruchirapalli

Model Examination			Date/Session	22.04.2024/FN	Marks	50
Course code	GE8076	Course Title	PROFESSIONAL ETHICS IN ENGINEERING			
Batch No.		Duration	3 Hrs	Academic Year	2023-2024	
Year/	IV	Semester/Section	VIII/A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Moral.	C409.1	R
2	What are Civil virtues?	C409.1	R
3	Bring out difference between Personal Ethics and Business Ethics.	C409.1	R
4	What is Conceptual Enquiry? Give one example.	C409.1	R
5	List any two responsibilities of Engineers to the Society.	C409.1	U
6	What do you mean by "Code of Ethics".	C409.1	R
7	Define the term "Risk".	C409.1	R
8	What is meant by 'Disaster'?	C409.1	A
9	What is meant by 'Technology Transfer'?	C409.1	U
10	What are the three versions of Relativism?	C409.1	A

Part – B

(Answer all the questions) 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(a) (i) List and explain any four characteristics of VALUES. (ii) What is meant by Work Ethics? List and explain elements of work ethics.	C409.1	U
	or		
12	(i)List any four core human values. Further classify/explain values related to each. (ii) Explain the meaning of integrity. Mention different types of integrity.	C409.1	A
13	(i) Define 'Moral Dilemma'. Explain in brief any three causes of Moral Dilemma. (ii) Define the following terms: (1) Gilligan's theory (2) Accountability, (3) Controversy and (4) Bribe	C409.1	R
	or		
14	(i) Define 'Moral Autonomy'. List any four skills required to improve moral autonomy. (ii) Define the following terms: (1) Kohlberg's theory (2) Ethical Egoism (3) Consensus and (4) Liability	C409.1	C

Part – C

(Answer all the questions 1 x 10 = 10marks)

15	(i)Explain the limitations of code of ethics. (ii) Discuss the problems associated with laws in engineering and Enumerate the proper role of law engineering?	C409.1	U
	Or		
16	(i)List any four essential roles 'Codes of Ethics'. (ii) Explain "Engineers as Responsible Experimenters".	C409.1	C

Bloom's skills: Remember (R), Understand (U), Apply (A), Analyze(AZ), Evaluate (E), and Create (C)

Dr.krishnakumar Professor/Head

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment – II			Date/Session	04.05.24/ FN	Marks	50
Course code	BE3254	Course Title	ELECTRICAL AND INSTRUMENTATION ENGG.			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/Section	II /A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	For a DC motor, write the expression for speed.	112.2	U
2	List the different applications of a DC shunt motor and Series motor.	112.2	R
3	Draw the speed-current and torque-current characteristics of a DC shunt motor.	112.2	AZ
4	List the types of DC motors. Give any one difference between them.	112.2	A
5	What is Universal motor? Mention its real time applications.	112.2	R,U
6	What is the necessity of a starter for starting a DC motor?	112.2	A,R
7	What are the different types of stepper motors?	112.2	U,R
8	What is a brushless DC motor? Write its applications	112.2	R
9	State the principle of a three-phase induction motor.	112.3	AZ
10	What is slip of an induction motor? State its expression.	112.3	R

Part – B (2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	With a neat sketch, explain the function of a three-point starter.	112.2	A,U
	Or		
12	With a neat sketch explain in detail the various methods of speed control in a DC Shunt and Series motor.	112.2	R
13	Determine the torque developed and shaft torque of a 220 V, four-pole series motor with 800 conductors wave-connected supplying a load of 8.2 kW by taking 45 A from the mains. The flux per pole is 25 mWb and its armature circuit resistance is 0.6 W.	112.2	E,AZ
	Or		
14	Discuss the different types of stepper motors with its working principle. State and explain its operation types.	112.2	A
	Part-C 1 x 10 = 10marks)		
15	Draw and explain the construction and working of a three-phase induction motor. Derive its Torque expression.	112.3	U,A
	Or		
16.	What are the different types of single-phase induction motors? Explain in detail.	112.3	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty In-charge-Mr.S.Ramprasath AP/EEE & Dr.R.Vijay AP/EEE.

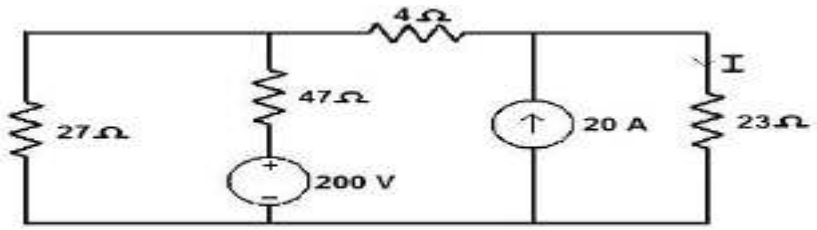
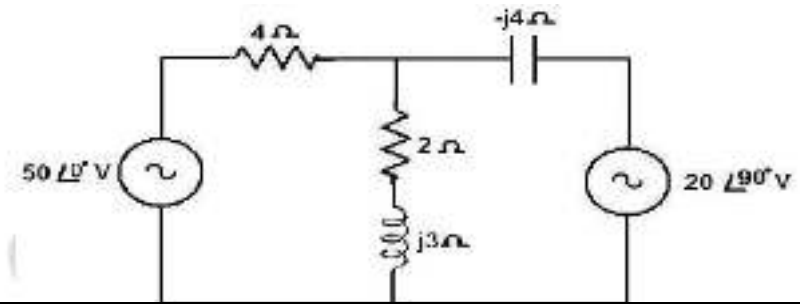
Saranathan College of Engineering
Tiruchirappalli

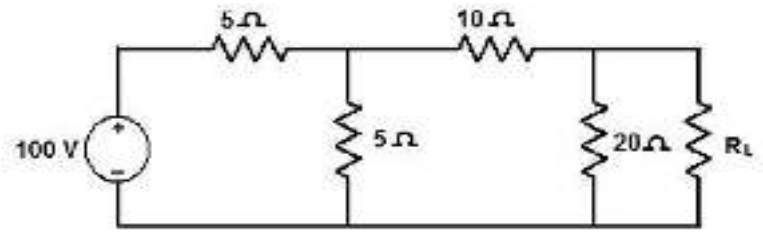
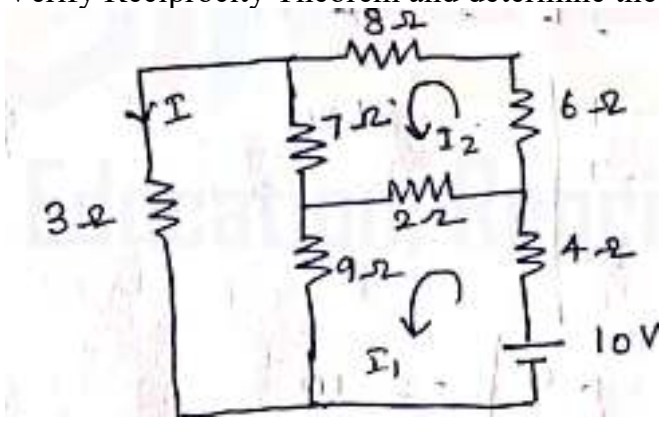
Internal Assessment Test - II			Date	03.05.2024	Marks	50
Course code	EE 3251	Course Title	ELECTRIC CIRCUIT ANALYSIS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	I	Semester/Section	II / A	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	State Superposition theorem.	C113.2	R
2	Define an ideal voltage source.	C113.2	R
3	State reciprocity theorem	C113.2	E
4	Write some applications of Maximum power transfer theorem.	C113.2	R
5	Three equal resistors each of R ohms are connected in star. Find the value of resistors in the equivalent delta.	C113.2	U
6	A voltage source has internal impedance (4+j5) ohm. Find the load impedance for maximum power transfer.	C113.2	E
7	Define time constant of RL circuit.	C113.3	E
8	Define transient response.	C113.3	R
9	Define Phase current in 3 phase system.	C113.3	R
10	Define active and Reactive power.	C113.3	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Compute the current in 23 ohm resistor using super position theorem for the circuit shown below. 	C113.2	E
	or		
12	For the circuit shown, determine the current in (2+j3) ohm by using Norton theorem. . 	C113.2	E

13	Find the value of RL so that maximum power is delivered to the load resistance shown in figure. Also find out the maximum power.  	C113.2	E
	or		
14	Verify Reciprocity Theorem and determine the current  	C113.2	E
	Part – C **(Answer all the questions 1 x 10 = 10marks)**		
15	Derive the expression for i(t) in a RL series circuit connected to dc step voltage.	C113.3	E
	or		
16	Derive the expression for i(t) in a RL series circuit connected to ac source voltage. V= 300 Sin314t. R= 200 ohm, L= 100 mH.	C113.3	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty in charge :Ms.N.GAYATHRI AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	04/05/2024	Marks	50
Course code	BE3251	Course Title	BASIC ELECTRICAL AND ELECTRONICSENGINEERING			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	I	Semester/ Section	II / A&B	Department	AI&DS, AIML, CSBS, CSE, IT & MECH	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	JFET is a voltage operated device. Justify.	C113.4	U
2	Define latching current of SCR.	C113.4	R
3	Differentiate rectifier and inverter.	C113.4	U
4	Write the applications of MOSFETs.	C113.4	U
5	Mention the types of biasing in BJT.	C113.4	R
6	What is meant by parity bit?	C113.5	R
7	Convert $(10110)_2$ to decimal.	C113.5	U
8	Mention the significance of K map.	C113.5	U
9	Define combinational logic circuits.	C113.5	R
10	Differentiate SOP and POS forms.	C113.5	U

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q.No.	Questions	CO	Skills
11	Explain the operation of full wave rectifier with neat diagram and waveforms.	C113.4	A
	Or		
12	Explain the working of CE configuration of a BJT with its input and output characteristics.	C113.4	A
13	Explain the construction and operation of MOSFET with relevant diagrams.	C113.4	A
	or		
14	Explain the construction and working of SCR, also draw its characteristics.	C113.4	A

Part – C (1 x 10 = 10marks)

15	Simplify the following function using Karnaugh map. $f(A,B,C,D)=\sum(0,1,3,4,8,9,10,12,13,14)$.	C113.5	AZ
	Or		
16	a. Draw the K Map for the given expression and simply it. Y=A'BC'+ABC'+AB'C'+A'B'C+A'BC+ABC b. Convert 95.023_{10} to binary value.	C113.5	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty Name: Mr.B.Paranthagan(AI&DS-B),Dr.M.V.Suganyadevi(AI&DS-A),Mr.R.Balasubramanian (Mech),Dr.M.Marimuthu (AIML),Mrs.C.Pearlinekamalini (CSBS) &Dr.P.Ram Prakash (CSE-A), Mr.R.Sridhar (CSE-B), Mr.S.Vigneshwaran(IT)

Saranathan College ofEngineering

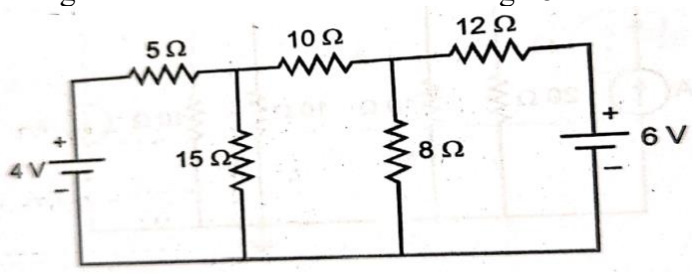
Tiruchirappalli -620012

InternalAssessment Test – II			Date/Session	04/05/2024/FN	Marks	50
Course code	BE3252	Course Title	Basic Electrical, Electronics & Instrumentation Engg.			
Batch No.		Duration	90 Mins	AcademicYear	2023-2024	
Year	I	Semester	II	Department	Civil	

Part – A (10×2=20 Marks)

Q. No.	Questions	CO	Skills
1	Define RMS Value of AC wave form	C112.1	U
2	Define power factor in AC Electrical system	C112.1	R
3	Distinguish between line voltage and phase voltage in 3φ AC circuit.	C112.1	U
4	Define magneto motive force	C112.2	AZ
5	A bar magnet has area of cross section of $2cm^2$ in which the flux density is 0.14T. Find the flux through the coil (i) plane of the coil perpendicular to flux lines (ii) parallel to flux lines and (iii) the angle between the plane of coil and flux line is 60^o	C112.2	E,AZ
6	What is meant by fringing effect in magnetic circuit?	C112.2	U
7	Define leakage coefficient	C112.2	U
8	What is the difference between self and mutual inductance?	C112.2	U
9	What are the requirements of fuse material in an electric circuit?	C112.2	R
10	List the types of cables in electric system.	C112.2	R

Part – B (2×10=20 Marks)

Q. No.	Questions	CO	Skills
11.	Using Nodal method find current through 8Ω resistor 	C112.1	E,AZ
	OR		
12.	A balanced delta-connected load of (8+j6)Ω per phase is connected to a 3-phase 415V, 50 Hz supply. Find the line current, power factor, power, reactive power and total volt-Ampere	C112.1	E,AZ
13.	Briefly explain about the different types of wiring used in electrical system	C112.2	U
	OR		
14.	Discuss the activities to be performed after an electric shock to person at site.	C112.2	R,U

Part – C (1×10=10 Marks)

Q. No.	Questions	CO	Skills
15.	A steel ring of 25cm mean diameter and of circular section, 3cm in diameter has an air gap of 1.5 mm length. It is wound uniformly with 700 turns of wire carrying a current of 2A. Calculate mmf, flux density, magnetic flux, reluctance in the air gap	C112.2	E,AZ
	OR		
16.	The number of turns in two coupled coils is 500 turns and 1500 turns respectively. When 5 A current flows in coli 1, the total flux in this coil is 0.6 X 10^{-3} wb and the flux linking the second coil is 0.3 X 10^{-3} wb. Determine L_1,L_2, M and K	C112.2	E,AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty In charge : P. Ramesh Babu/AP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date / Session	30.04.2024 / FN	Marks	50
Course code	EE3401	Course Title	TRANSMISSION AND DISTRIBUTION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV / A	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the factors affecting sag?	C212.3	R
2.	Define safety factor for sag in transmission line.	C212.3	R
3.	A 132 kV transmission line has the following data: weight of the conductor = 0.68 kg/m; Length of span = 260 m; Working Tension = 1550 kg. Calculate the sag.	C212.3	A
4.	Define string efficiency.	C212.4	R
5.	How the shunt capacitance affect the string efficiency?	C212.4	U
6.	What are the methods of improving string efficiency of string insulator?	C212.4	R
7.	State the effects of unequal distribution of stress in a cable.	C212.5	R
8.	What is the difference between capacitance grading and intersheath grading for an underground cable?	C212.5	A
9.	How is leakage resistance different from resistance of core in a cable?	C212.5	R
10.	What are the desirable characteristics of insulating materials used in cables?	C212.5	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	A single core lead covered cable is to be designed for a safe working voltage of 66kV to earth (peak). Its conductor diameter is 2 cm and its three insulating materials have permittivities 3, 4 and 5 respectively with the corresponding maximum safe working stress of 20kV/cm, 26kV/cm and 38kV/cm respectively. Find the minimum diameter of the lead sheath.	C212.5	A
	OR		
12.	With neat diagram and equations, explain the methods of grading of cables.	C212.5	R
13.	The towers of height 30 m and 90 m respectively support a transmission line conductor at water crossing. The horizontal distance between the towers is 500m. If the tension in the conductor is 1600 kg, find the minimum clearance of the conductor and water. Also calculate the clearance mid-way between the supports. Weight of the conductor is 1.5 kg/m. Consider the base of the tower at water level.	C212.3	A
	OR		
14.	What is the expression for sag for a overhead transmission line when the supports are at unequal level? Explain the effect of ice and wind loading.	C212.3	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Each line of the three insulators forming a string has a self-capacitance of C Farad. The shunt capacitance of each insulator is 0.2 C to earth and 0.1 C to line. A guard ring increases the capacitance of line of the metal work of the lowest insulator to 0.3 C. Evaluate the string efficiency.	C212.4	E
	OR		
16.	Classify the different types of insulators used for overhead transmission line and explain with neat diagrams.	C212.4	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: B.Paranthagan, ASP-EEE

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test – II			Date/Session	6.5.2024	Marks	50
Course code	EE 3404	Course Title	Microprocessor & Microcontroller			
Batch No.		Duration	1 ½ hours	Academic Year	2023-2024/EVEN	
Year	II	Semester	04	Department	EEE	

Part – A (20 Marks)

I. Choose the correct Answer for the following Questions **(10x1=10 Marks)**

Q. No.	Questions	CO	Skills
1.	State any four data transfer Instruction with example	C213.2	U
2.	Examine the functioning of CMP Instruction	C213.2	R
3.	Differentiate CALL and JUMP instruction	C213.2	U
4.	Write any four addressing modes of 8085 microprocessor.	C213.2	U
5.	Define subroutine in 8085 processor.	C213.2	U
6.	Define the operation of i. XRL A, 50H ii. ADD A,#45H	C213.2	R
7.	Draw the command word format of 8255 in I/O mode	C213.3	R
8.	Mention the need for ADC and DAC in microcontroller circuits.	C213.3	R
9.	Write the maximum number of interrupts obtained by 8259.	C213.3	A
10.	Name the major block of 8259 Programmable Interrupt Controller.	C213.3	A

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the modes of operation of 8255 with pin details and architecture.	C213.3	AZ
	Or		
12	Discuss the working modes of Timer in 8254 with pin details and architecture.	C213.3	AZ
13	Discuss in detail about any two methods of ADC technique.	C213.3	AZ
	Or		
14	Short notes on Interrupt controller 8259 with pin details and architecture.	C213.3	AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain any six control instructions in 8085 with suitable example.	C213.2	AZ
	Or		
16	Explain any six Arithmetic instructions in 8085 with suitable example.	C213.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: Dr.M.Marimuthu

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - II			Date/ Session	07/05/2024	Marks	50
Course code	EE3405	Course Title	Electrical Machines II			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year	II	Semester/ Section	IV/A	Department		EEE

Part – A

(Answer all the questions 10 × 2 = 20 Marks)

Q. No.	Questions	CO	Skills
1	How does the change of excitation affects the power factor?	C216.2	AZ
2	Define torque angle.	C216.2	U
3	Name the various torques associated with the synchronous motors.	C216.2	AZ
4	How can the speed of the synchronous motor be varied?	C216.2	A
5	List the applications of synchronous motors.	C216.2	R
6	Define hunting.	C216.2	AZ
7	What for the damper winding is provided in synchronous machines?	C216.2	U
8	What is the necessity of starter for induction motor?	C216.4	AZ
9	Express the relationship between the starting torque and full load torque of DOL starter.	C216.4	AZ
10	Why is rotor resistance starter unsuited for a squirrel cage induction motor?	C216.4	A

Part – B (Answer all the questions 2 × 10 = 20 Marks)

Q. No.		Questions	CO	Skills
11.		Explain V and inverter V curves as applied to synchronous motors with necessary diagrams.	C216.2	AZ
		OR		
12.	a.	Discuss the starting methods of synchronous motor.	C216.2	U
	b.	With the help of phasor diagram, explain the operation of synchronous condensor.	C216.2	A
13.		Discuss the following starters for three phase induction motor: (i) Auto-transformer starter, (ii) DOL starter.	C216.4	A, AZ

	OR		
14.	Explain the necessity of starter with suitable expression and discuss the working of star-delta starter. Also derive the relationship between starting torque and full load torque.	C216.4	A, AZ

Part – C (Answer all the questions 1 × 10 = 10 Marks)

Q. No.	Questions	CO	Skills
15.	With the help of phasor diagram, derive the mechanical power and torque developed by a synchronous motor.	C216.2	AZ, E
	OR		
16.	Describe in detail about the effect of load change on load angle and power factor of a 3Φ synchronous motor operating on infinite bus bar and constant excitation.	C216.2	AZ, E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff-in-charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	26/03/2024	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Compare Rooftop Solar System with BIPV system.	311OE15.2	U
2	Write the advantages of Solar Water Pumps.	311OE15.2	U
3	Draw the block Diagram of a Solar Street light system.	311OE15.2	R
4	Define Gusts.	311OE15.3	R
5	Write the different types of Horizontal Axis Wind Turbines.	311OE15.3	R
6	Define Power Co-efficient of WECS.	311OE15.3	R
7	Why utilization of wind is considered as part of solar technology?	311OE15.3	U
8	Draw the block diagram of a wind power plant.	311OE15.3	R
9	Define Stalling of Wind Power Plant.	311OE15.3	R
10	Write the merits and demerits of Three blade Rotor over Two blade Rotor.	311OE15.3	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Draw the Schematic Diagram of the Standalone Solar Photovoltaic System. What are the Main components used in it? Explain their function.	311OE15.2	A
	Or		
12	(i) Explain the operation of Grid Connected Solar Photovoltaic System with and without Battery backup. (6) (ii) With neat diagram, Explain the operation of Solar-wind Hybrid System. (4)	311OE15.2	A
13	Explain briefly about the types of wind mills with neat Sketch.	311OE15.3	A
	Or		
14	Describe in detail the site selection procedure of a wind power plants.	311OE15.3	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	Derive the power extracted from wind along with the wind Power Vs Speed characteristics.	311OE15.3	A
	Or		
16	With neat diagram explain the Wind Energy Conversion System (WECS)	311OE15.3	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash, Mr.R.Sridhar

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	26.03.2024	Marks	50
Course code	EE3602	Course Title	POWER SYSTEM OPERATION AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	VI / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Write the tie line power deviation equation in terms of frequency.	C412.2	A
2.	What are the assumptions made in dynamic response of uncontrolled case?	C412.2	R
3.	Explain the principle of tie line bias control.	C412.2	R
4.	What is the different types of Static VAR Compensator	C412.3	AZ
5.	Distinguish between on-load and off-load tap changing transformer	C412.3	AZ
6.	What is booster transformer? Where it is used?	C412.3	R
7.	Compare series and shunt capacitors.	C412.3	R
8.	Where are the synchronous condenser installed?	C412.3	A
9.	Invent importance of V-I characteristics of STATCOM?	C412.3	AZ
10.	Outline the role of synchronous generators adopted generating and absorption of reactive power	C412.3	AZ

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	A two-area power system connected by a tie-line has the following parameters: Parameters/Area — Area 1 — Area 2 Turbine output Power (MW) — 4000 — 2000 Nominal Frequency (Hz) — 50 — 50 Speed regulation — 4% — 5% Power system Gain (kp) — 50 — 125 Governor Time Constant — 0.2 — 0.1 Turbine Time Constant — 0.3 — 0.25 A load change of 80 MW occurs in area 1. Determine the steady state frequency and the change in the tie-line flow.	C412.2	U, A
	OR		
12.	Draw the block diagram of uncontrolled two area load frequency control system and explain the salient features under static conditions.	C412.2	U, A
13.	Explain the following methods of voltage control. (i) STATCOM ,(ii) Shunt capacitors and (iii) Shunt Reactors	C412.3	R, AZ
	OR		
14.	Examine the circuit for a typical excitation system and derive the transfer function model and draw the block diagram.	C412.3	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the operation of tap changing transformer and discuss its application.	C412.3	R, A
	OR		
16	a) Explain why reactive power management and control is critical for overall system stability. (5 marks) b) Write about the various Reactive power sources and sinks (5 marks)	C412.3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - II			Date/ Session	28.03.2024 / FN	Marks	50
Course code	EE3011	Course Title	Multilevel Power Converters			
Batch No.		Duration	90 Mins	Academic Year		2021-2022
Year/	III	Semester/ Section	VI	Department		EEE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List the merits of staircase modulation.	C312.2	U
2	Write the expression to derive the value of the switching angles.	C312.2	U
3	Compare the phase and level shifted PWM schemes.	C312.2	AZ
4	What are clamping diodes?	C312.3	R
5	Define direct clamping and indirect clamping.	C312.3	U
6	How the inner capacitors and outer capacitors charge or discharge when the DCMC works to deliver power from DC side to AC side?	C312.3	AZ
7	List the aspects by which the modulation strategies will be selected for DCMC.	C312.3	U
8	Write the advantages of PD-PWM.	C312.3	R
9	Write the expression of average reference voltage vector in space vector modulation.	C312.3	U
10	What are the steps involved in the algorithm to find the reference voltage in the hexagonal coordinate system.	C312.3	A

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.a	Discuss the level-shifted modulation used in CHB multilevel converters in detail.	C312.2	AZ, E
	OR		
11.b	Describe the operation of 7-level CHB multilevel converter with unequal voltage sources in detail with the switching table.	C312.2	AZ, E
12.a	Explain the operation of 5-level DCMC with neat diagram and the switching logic.	C312.3	A, E
	OR		

12.b	Describe the voltage variation on DC bus of DCMC as a function of power flow direction.	C312.3	A, E

Part – C Answer all the questions

Q. No.	Questions	CO	Skills
13.a	Discuss the process of developing space vector modulation for two-level VSC.	C312.3	AZ, E
	OR		
13.b	Describe the voltage balance control and optimization in n-level DCMC.	C312.3	AZ, E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	01/04/2024	Marks	50
Course code	EE3020	**Course Title**	Smart automation systems			
Batch No.		**Duration**	90 mins	**Academic Year**	2024	
Year	III rd	**Semester/ Section**	VI / A	**Department**	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No	Question	CO	Skills
1	What sensors are used in the body area network?	C315OE4V35.4	AZ
2	What is the body area network?	C315OE4V35.4	AZ
3	List the applications for smart wearable systems.	C315OE4V35.4	U
4	How many ADC pins are there in esp32 and give its resolution.	C315OE4V35.2	A
5	What is the maximum supply voltage level for esp32 controller.	C315OE4V35.2	U
6	List the type of sensors needed for smart meters.	C315OE4V35.3	AZ
7	List various applications for smart meters.	C315OE4V35.3	U
8	What is need for signal conditioning circuit in smart meters	C315OE4V35.3	U
9	What are the standards adopted for smart meters.	C315OE4V35.3	R
10	Why RTC is used in smart meters.	C315OE4V35.3	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q.No	Questions	CO	Skills
11	Explain different type of wearable sensors for healthcare system.	C315OE4V35.4	A
	Or		
12	Explain the communication protocol adopted for Wearable devices	C315OE4V35.4	U
13	Design the Current and Voltage measuring modules for smart metering system using ESP32.	C315OE4V35.3	AZ
	Or		
14	Explain security considerations for smart energy management systems	C315OE4V35.3	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No	Questions	CO	Skills
15	Explain the energy measurement technique adopted for smart energy management systems.	C315OE4V35.3	A
	Or		
16	Explain the hardware structure of a smart meter.	C315OE4V35.3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In charge: S.Ramprasath /AP/EEE/SCE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	25-03-2024/FN	Marks	50
Course code	EE3601	Course Title	Protection and Switchgear			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Name the different kinds of over current relays.	C311.2	U
2	What are the different types of over current relays.	C311.2	R
3	Give the limitations of Merz Price protection.	C311.2	R
4	What is the purpose of plug setting?	C311.2	U
5	Define the term pilot with reference to power line protection.	C311.2	U
6	What are the various faults that would affect an alternator?	C311.3	U
7	What is over fluxing protection in transformer?	C311.3	U
8	What are the uses of Buchholz's relay?	C311.3	U
9	Write the coordination equation for inverse over-current relay?	C311.3	R
10	Explain why secondary of current transformer should not be open.	C311.3	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	With a neat sketch, explain the working of Time-distance Impedance relay	C311.2	R
	OR		
12	Explain the working principles of following relays. i. Negative sequence relay ii. Under frequency relay	C311.2	R
13	Describe the Merz price circulating current system of protection used for alternators with neat diagrams.	C311.3	R
	OR		
14	Show the protective scheme employed for the bus bar.	C311.3	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Explain the principle of pilot-wire relaying schemes for protection of transmission lines and list out the advantages and disadvantages of it.	C311.3	R
	OR		
16	Explain in detail about Gas operated relay for the protection of transformers	C311.3	A

Name of the Faculty: C.Krishnakumar, Prof.& Head/EEE

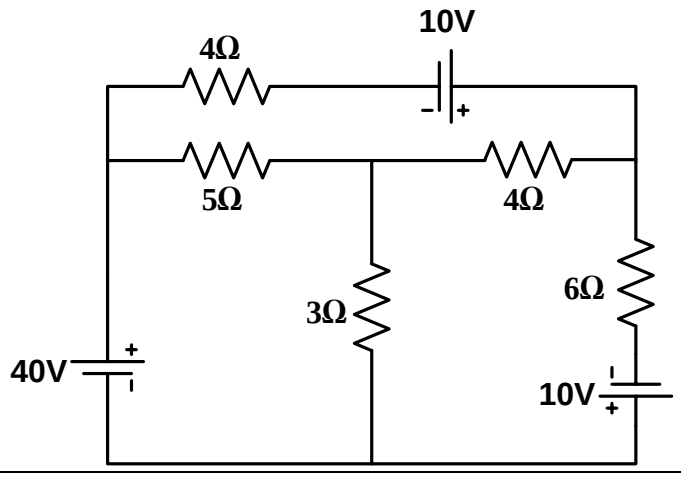
Saranathan College of Engineering
Tiruchirapalli

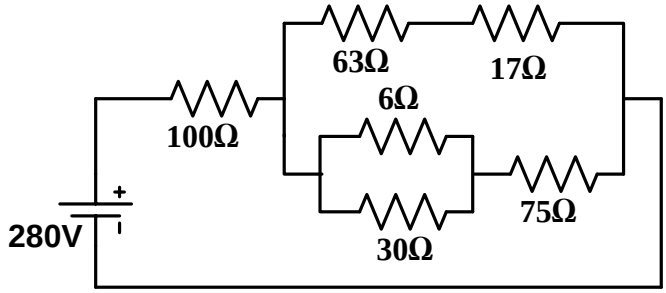
Internal Assessment Test - I			Date/ Session	06/04/2024	Marks	50
Course code	BE3251	Course Title	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	I	Semester/ Section	II / A & B	Department	AI&DS, AIML, CSBS, CSE, IT, MECH	

Part – A
(Answer all the questions 10 x 2 = 20marks)

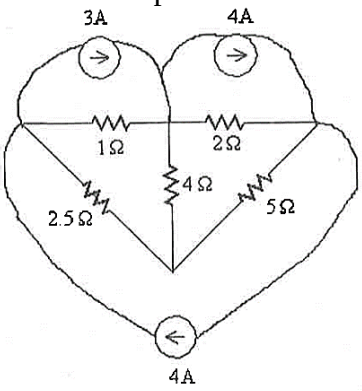
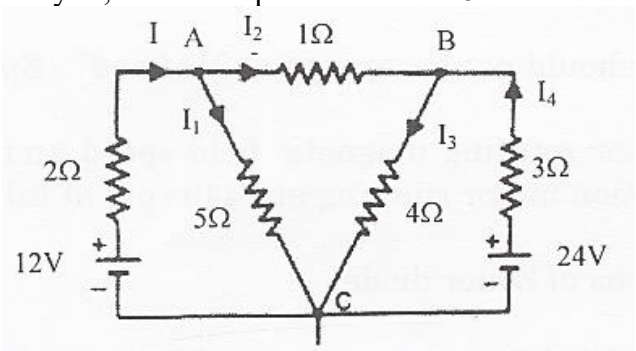
Q. No.	Questions	CO	Skills
1	State the limitations of Ohm's law	C113.1	R
2	Define Kirchhoff's laws.	C113.1	R
3	Two parallel 2Ω resistors are connected in series with three parallel 3Ω resistors. Calculate the effective resistance of the circuit.	C113.1	U
4	Twenty lamps each of 60 watts connected across 240V supply, used for 4 hours per day in a building. Calculate the current drawn when all the lamps are working.	C113.1	U
5	Resistors R_A, R_B, and R_C are connected in series to a 250V source. Given $R_C = 50\Omega$ and $V_B = 80$ Volts when the current is 2 amperes, calculate the resistances R_A and R_B.	C113.1	U
6	A 5A current source is in parallel with a 10Ω resistor. Convert the given current source into a voltage source.	C113.1	R
7	Define i) Node ii) Branch.	C113.1	U
8 33	Draw the V-I characteristics of an Ideal Voltage Source.	C113.1	U
9	Define Avalanche breakdown.	C113.3	R
10	Write the applications of Zener diode.	C113.3	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q.No.	Questions	CO	Skills
11	Using mesh analysis, find the current through 5Ω resistor in the given circuit. 	C113.1	AZ
	or		
12	Find the equivalent resistance of the given circuit also find current through each resistance.	C113.1	A

			
13	With neat diagram explain the operation of PN junction diode. Also explain Avalanche breakdown.	C113.3	A
	or		
14	With neat diagram explain the operation of Zener diode. Also explain Zener breakdown.	C113.3	A

Part – C (1 x 10 = 10marks)

15	Use Nodal analysis, determine the potential across 4Ω resistor. 	C113.1	AZ
	Or		
16	Using nodal analysis, determine potential across 5Ω resistor. 	C113.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

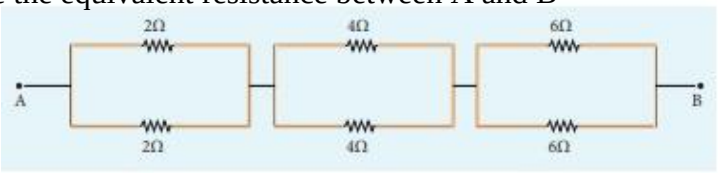
Faculty Name: Mr.B.Paranthagan(AI&DS-B), Dr.M.V.Suganyadevi(AI&DS-A), Mr.R.Balasubramanian (Mech), Dr.M.Marimuthu (AIML), Mrs.C. Pearlin kamalini (CSBS) & Dr.P.Ram Prakash (CSE-A), Mr.R.Sridhar (CSE-B), Mr.S.Vigneshwaran(IT)

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test – I			Date/Session	06/04/2024/FN	Marks	50
Course code	BE3252	Course Title	Basic Electrical, Electronics & Instrumentation Engg.			
Batch No.		Duration	90 Mins	Academic Year	2023-2024	
Year	I	Semester	II	Department	Civil	

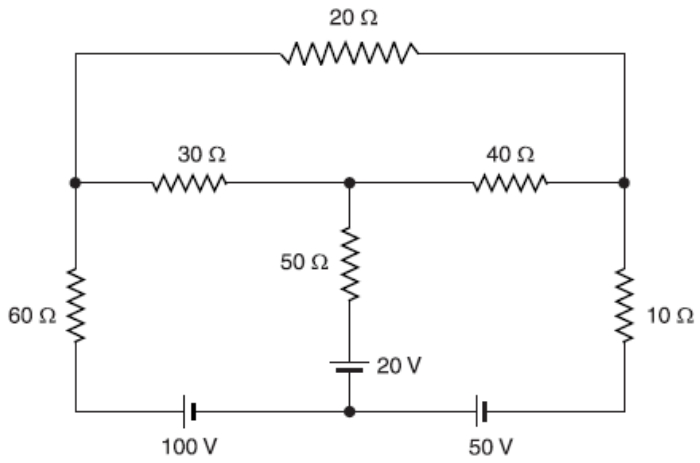
Part – A (10×2=20 Marks)

Q. No.	Questions	CO	Skills
1	Define ohm's law	C112.1	R
2	State Kirchhoff's law	C112.1	R
3	Calculate the equivalent resistance between A and B 	C112.1	E
4	State the working principle of DC generator	C112.3	AZ
5	Mention the applications of DC shunt and series motor	C112.3	R
6	Define transformation ratio of transformer	C112.3	U
7	Mention the applications of transformer	C112.3	U
8	What are the different types of three phase induction motor?	C112.3	U, AZ
9	What are the special features of synchronous motor	C112.3	R
10	List the types of alternators based on rotor construction.	C112.3	R

Part – B (2×10=20 Marks)

Q. No.	Questions	CO	Skills
11.	Explain the construction and working principle of transformer	C112.3	U
	OR		
12.	Explain the construction working principle of three phase induction motor	C112,3	E, AZ
13.	**(a)** Derive an emf equation of Dc generator **(b)** A shunt generator delivers 450 A at 230 V and the resistance of the shunt field and armature are 50 Ω and 0.03 Ω respectively. Calculate the generated EMF?	C112.3	E, AZ
	OR		
14.	Explain the construction and working principle of DC motor with neat diagram.	C112.3	R,U

Part – C (1×10=10 Marks)

Q. No.	Questions	CO	Skills
15.	Calculate the current in each branch of the circuit shown in fig.  	C112.1	E,AZ
	OR		
16.	A series RLC circuit has R=25Ω, L = 0.221mH, C = 66.3μF with frequency of 60Hz. Determine the power factor.	C112.1	E,AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty In charge : P. Ramesh Babu/AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment – I			Date/Session	06.03.24/FN	Marks	50
Course code	BE3254	Course Title	ELECTRICAL AND INSTRUMENTATION ENGG.			
Batch No.		Duration	90 mins	Academic Year	2024- 2025	
Year	I	Semester/Section	II /A&B	Department	ECE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define Voltage regulation and Efficiency of transformer.	112.1	R,U
2	Draw the exact equivalent circuit of a transformer.	112.1	AZ
3	Explain ideal transformer and draw its phasor diagram	112.1	R
4	What are the various losses occurring in a transformer?	112.1	R,U
5	Draw the connection diagram of Star-Delta and Delta-Star type 3 phase transformer.	112.1	R,U
6	A 220V / 110 V, 50 Hz Ideal transformer has 166 turns in its primary. What is the peak value of flux?	112.1	AZ
7	What is harmonics? How can it be minimized?	112.1	AZ
8	Describe the working principle of operation of a DC generator	112.2	U
9	Give the function of commutator in a DC machine	112.2	U
10	Define back emf?	112.2	A

Part – B

Q. No.	Questions	CO	Skills
11	What is meant by auto transformer? Derive the expression for saving of copper and mention its application	112.1	A
	Or		
12	Draw a general schematic of single phase transformer .Describe its working principle and deduce the expression for EMF in secondary winding.	112.1	U
13	i) Draw and explain the phasor diagram of Practical transformer on no load.(6) ii) Define Per Unit system and deduce the expression for per unit model of a transformer.(4)	112.1	AZ
	Or		
14	A 2000V / 200V transformer has primary resistance and reactance of 2 Ω and 4 Ω. The corresponding secondary values are 0.025 Ω and 0.04 Ω. Determine i) Equivalent resistance and reactance of primary referred to secondary, ii) Total resistance and reactance referred to secondary, iii) Equivalent resistance and reactance of secondary referred to primary, iv) Total resistance and reactance referred to primary.	112.1	AZ
	Part-C		
15	Draw and explain the construction and principle of operation of DC generator.	112.1	U
	Or		
16.	The armature of a 4-pole wave wound D.C. shunt generator has 144 slots and 3 conductors per slot. If the armature in rotated with a speed of 1200 rpm in a field of 0.025 weber per pole, Estimate the emf generated.	112.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty In-charge- Mr.S.Ramprasath AP/EEE & Dr.R.Vijay AP/EEE.

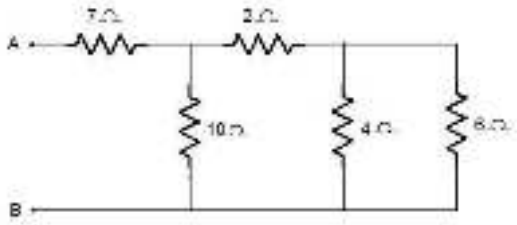
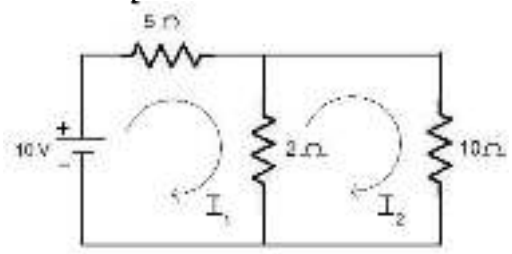
Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test - I			Date/ Session	05.4.2024/AN	Marks	50
Course code	EE3251	**Course Title**	ELECTRIC CIRCUIT ANALYSIS			
Batch No.		**Duration**	90 mins	**Academic Year**	2023- 2024	
Year/	I	**Semester/ Section**	II/A	**Department**	EEE	

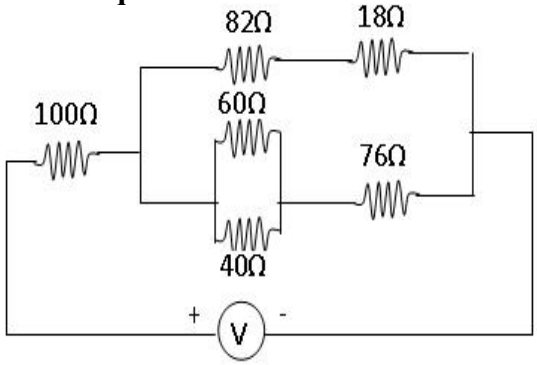
Part – A

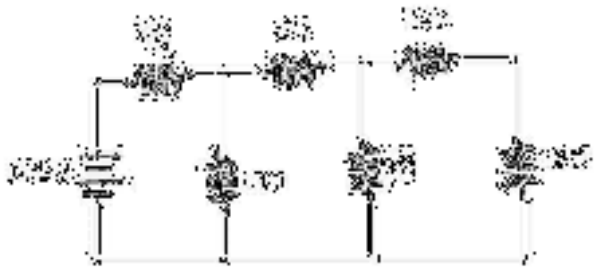
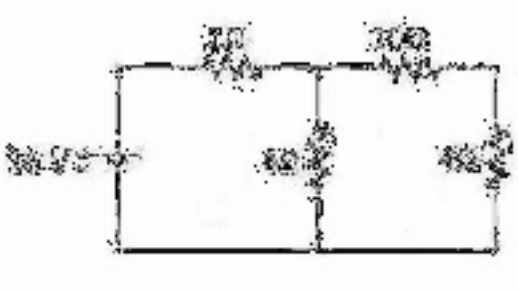
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	State Ohm's law and its limitations.	C113.1	R
2	Name different network elements.	C113.1	R
3	State two salient points of a series combination of resistance.	C113.1	R
4	Define the current division rule.	C113.1	R
5	Write the equivalent resistance equation for series and parallel circuit.	C113.1	E
6	Define Kirchhoff' laws.	C113.1	R
7	Find resistance across AB. 	C113.1	E
8	Write the mesh equations for the circuit shown in figure below 	C113.1	E
9	Two resistors 4 ohm and 6 ohm are connected in parallel. If the total current is 12A, find the current through each resistor.	C113.1	E
10	A bulb is as rated 230V, 230W. Find the rated current, resistance of the filament and the energy consumed when it is operated for 10 hours.	C113.1	E

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO23	Skills
11	**Find the equivalent resistance for the circuit shown below.** 	C113.1	E
Or			

12.	**a) Calculate i) the equivalent resistances across the supply terminals, ii) total current and iii) power delivered by 15Ω resistor in the circuit shown in fig.**  **b) Explain kirchoffs current law with explain.**	C113.1	E
13.	**Determine the mesh currents for the given circuit shown below.** 	C113.1	AZ
	or		
14.	**a) In the circuit shown, determine the current through the 2Ω resistor and the current delivered by the battery.** **b) Explain the kirchoffs voltage law with example**.	C113.1	AZ
15.	**State Nortons Theorem and explain with appropriate example.**	C113.2	E
	or		
16.	**Find the Thevenin's voltage across 4 ohm resistor and the Load Voltage.** 	C113.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date / Session	02.04.2024 / FN	Marks	50
Course code	EE3401	Course Title	TRANSMISSION AND DISTRIBUTION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV / A	Department	EEE	

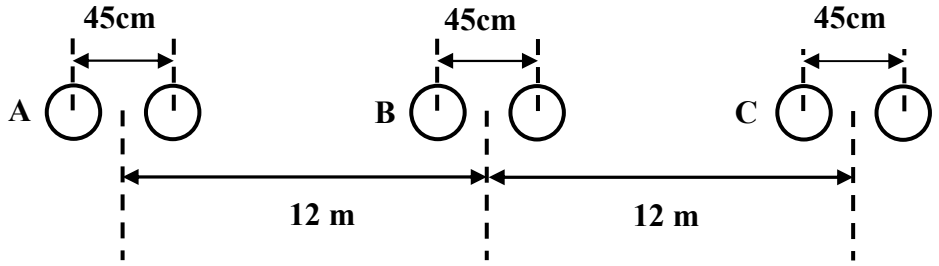
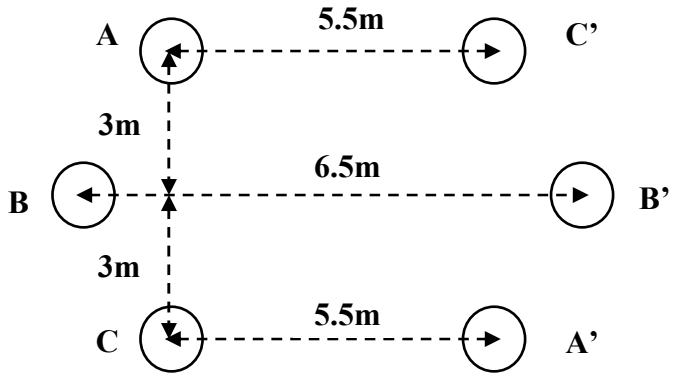
Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the advantages of using bundled conductors?	C212.1	R
2.	Distinguish between stranded and bundled conductors.	C212.1	U
3.	Why transmission lines are transposed? Mention the advantages of transposition of conductors.	C212.1	A
4.	What is meant by Distribution system and what is the purpose of the 4^{th} wire in a 3-Φ, 4 wire secondary distribution system?	C212.1	U
5.	What is skin effect? How skin effect depends upon the frequency of the circuit?	C212.1	R
6.	Calculate the loop inductance per kilometer comprising two parallel conductors 1 m apart and 1 cm diameter	C212.1	R
7.	Compute the capacitance of a 3Φ overhead line where the radius of conductor is 0.5 cm and the spacing between the conductors is 300 cm.	C212.1	A
8.	Mention the different classification of cables based on the voltage rating.	C212.5	R
9.	Distinguish cables from overhead lines	C212.5	A
10.	What is the difference between capacitance grading and intersheath grading for an underground cable?	C212.5	A

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Draw and explain the structure of typical electrical power system with various voltage levels.	C212.1	R
	OR		
12.	Derive an expression for inductance of a 3 phase asymmetrically spaced transmission line.	C212.1	A
13.	Explain the construction of a cable with a neat sketch.	C212.5	R
	OR		
14.	With neat diagram and equations, explain the methods of grading of cables.	C212.5	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	A 400 kV 3 phase bundled conductor line with 2 sub-conductors per bundle has a horizontal configuration as shown in figure. The radius of each sub-conductor is 1.6 cm.  a. Find the inductance per phase per km of the line. (5) b. Compute the inductance of the line with only one conductor per phase having same cross sectional area. (3) c. What do you infer from the results? (2)	C212.2	AZ
	OR		
16.	A 100 km long double circuit 3Φ line has its conductor at the vertices of a hexagon as shown in the following figure. The conductor radius is 1.25 cm. Find its capacitance per phase.  	C212.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: B.Paranthagan ASP-EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	03.04.2024/FN	Marks	50
Course code	EE3402	Course Title	Linear Integrated Circuits			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/ Section	IV	Department	EEE	

Part – A

(Answer all the questions (10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	List out the ideal characteristics of op amp.	C213.2	R
2	What is slew rate? What causes the slew rate? State slew rate equation.	C213.2	U
3	Define: input bias current, input offset current.	C213.2	R
4	For an op-amp if CMRR=40 db, Ac=20, find Ad.	C213.2	U
5	Draw the equivalent circuit of ideal op-amp.	C213.2	R
6	State and draw the various Blocks of IC OP-AMP.	C213.2	R
7	Design a non inverting amplifier with a gain of 30. Assume feedback resistor value as 10K ohms.	C213.2	R
8	List out the requirements of instrumentation amplifier.	C213.3	R
9	List out the applications of comparator	C213.3	R
10	Draw the output waveforms of mono-stable and Astable multi-vibrators	C213.3	R

Part – B

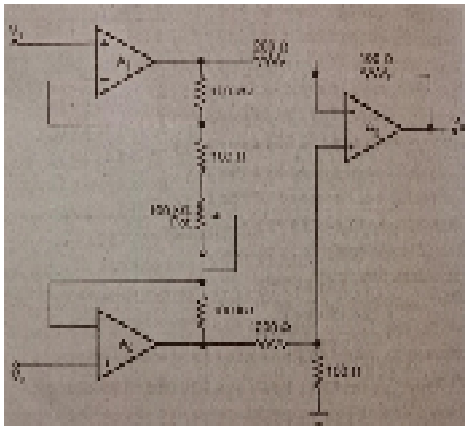
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of inverting and non-inverting configuration of operational amplifier	C213.2	U
	Or		
12	With necessary diagrams explain the operation of a) V to I converter b) I to V converter. List out the applications.	C213.2	U
13	a) With necessary diagrams explain the operation of differentiator. Derive the expression for output of differentiator. b) Design an op-amp differentiator that will differentiate an input signal with f_{max}=100 Hz. Find f_a, f_b, R_f, C_f.	C213.2	U,A, AZ,E
	Or		
14	Explain AC and DC Characteristics of OP-AMP	C213.2	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	With necessary diagrams, explain the operation of 3 op amp instrumentation amplifier. Explain its application for transducer bridge	C213.3	U
	Or		

16	 In the given Instrumentation amplifier, determine the range over which its gain can be varied if the potentiometer is over its entire range.	C213.3	A,AZ, E

Bloom's Skills: *Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question*

Mr.A.Kesavan/AP/ECE

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test – I			Date/Session	6.4.2024	Marks	50
Course code	EE 3404	Course Title	Microprocessor & Microcontroller			
Batch No.		Duration	1 ½ hours	Academic Year	2023-2024/EVEN	
Year	II	Semester	04	Department	EEE	

Part – A (20 Marks)

I. Choose the correct Answer for the following Questions **(10x1=10 Marks)**

Q. No.	Questions	CO	Skills
1.	Define instruction cycle.	C213.1	A
2.	Mention the use of ALE in 8085 Microprocessor	C213.1	U
3.	State any four pins of 8085 Microprocessor which are used to generate control and status signals.	C213.1	U
4.	Define Machine cycle.	C213.1	U
5.	Define address bus and Data bus.	C213.1	R
6.	Define STA 2030 H instruction in 8085 processor.	C213.2	U
7.	Give examples for one byte, two byte and three byte instructions.	C213.2	U
8.	Explain the operation of MOV B, C & MVI B,05	C213.2	U
9.	Differentiate MVI, and MOV instruction.	C213.2	U
10.	Explain one Rotate instruction with an example.	C213.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Draw and explain the architecture of 8085 processor.	C213.1	AZ
	Or		
12	Briefly explain about the interrupts available in 8085.	C213.1	AZ
13	Briefly explain about the Pin out details of 8085.	C213.1	AZ
	Or		
14	Draw the timing diagram for the instruction MOV A,B	C213.1	AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15	Explain the various addressing modes in 8085 with suitable examples.	C213.2	AZ
	Or		
16	Explain any six data transfer instructions in 8085 with suitable example.	C213.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: Dr.M.Marimuthu

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test - II			Date/Session	08-04-2024/FN	Marks	50
Course code	EE3405	Course Title	Electrical Machines – II			
Batch No.		Duration	90 Mins	Academic Year	2023-2024/Even	
Year	II	Semester	IV	Department	EEE	

Part – A (5×2=10 Marks)

Q. No.	Questions	CO	Skills
1	Define pitch factor.	C210.1	A
2	Why is the field system if an alternator made as a rotor?	C210.1	R
3	What is distributed winding and what is meant by distribution factor?	C210.1	U
4	List the factors affecting the terminal voltage of synchronous generators.	C210.1	R
5	Write the equation for frequency of EMF induced in an alternator.	C210.1	R
6	Which method of predetermining the voltage regulation is called optimistic method. Why?	C210.1	U
7	Define voltage regulation in alternator.	C210.1	R
8	Define armature reaction in synchronous generator.	C210.1	R
9	State the conditions for connecting two alternators in parallel.	C210.1	R
10	Two reaction theory is applied only to salient pole machines. State the reason.	C210.1	AZ

Part – B (2×10=20 Marks)

Q. No.	Questions	CO	Skills
11.	With neat sketch describe the construction and principle of operation of salient pole alternator.	C210.1	U
	OR		
12.	Derive the EMF equation of an alternator.	C210.1	AZ
13.	Explain the effect of armature reaction on different power factor loads of synchronous generators with suitable phasor diagram.	C210.1	AZ
	OR		
14	Describe a method of determining direct and quadrature axis reactance of salient pole alternator.	C210.1	AZ

Q. No.	Questions	CO	Skills
15.	A 3.3 kV alternator gave the following results : I_f (A): 16 | 25 | 37.5 | 50 | 70 $V_{oc,L-L}$ (kV): 1.55 | 2.45 | 3.3 | 3.75 | 4.15 A field current of 18 A is found to cause the full load current to flow through the winding during short circuit test. Predetermine the full load voltage regulation at (1) 0.8 pf lag and (2) 0.8 pf lead by MMF method.	C210.1	E
	OR		
16.	Explain step by step method of Potier triangle method of determining the regulation of an alternator.	C210.1	E

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	27/02/2024	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List out the major factors influencing the amount of Green House Gas emissions.	311OE15.1	U
2	What is meant by Primary and Secondary Energy source? Give examples.	311OE15.1	U
3	List the advantages of Renewable Energy Systems.	311OE15.1	U
4	Give the various common forms of Energy.	311OE15.1	R
5	Mention the total installed capacity of RE sources-based power generation in India.	311OE15.1	U
6	Define Declination angle.	311OE15.2	R
7	What is Concentration Ratio in a Solar Collector?	311OE15.2	R
8	Differentiate between beam and diffused radiation.	311OE15.2	U
9	What are the limitations of solar energy utilization techniques?	311OE15.2	U
10	Compare Thin film, Monocrystalline and Polycrystalline solar cells.	311OE15.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	With Neat diagram explain the Battery Charging system with its key set points.	311OE15.2	A
	or		
12	With neat diagram explain the operation of Pyranometer and Pyrheliometer. (5+5)	311OE15.2	A
13	With neat diagram explain any three solar plate collectors. (4+3+3)	311OE15.2	A
	or		
14	With neat diagram explain the operation of a solar cell and its characteristics.	311OE15.2	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	(a) Analyze the availability and efficiency of conversion of non-conventional energy sources in India. State the important features of availability and efficiency as found from this analysis. (6) (b) List the Advantage and Disadvantages of conventional energy systems. (4)	311OE15.1	AZ
	or		
16	(a) Compare the energy consumption pattern in various sections in India. Discuss the growth rate of energy requirements and power generation in India. (6) (b) Explain the classification of Energy sources (4)	311OE15.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash, Mr.R.Sridhar

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	27/02/2024/FN	Marks	50
Course code	OEE351	Course Title	RENEWABLE ENERGY SYSTEM			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A&B	Department	ECE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List out the major factors influencing the amount of Green House Gas emissions.	311OE15.1	U
2	What is meant by Primary and Secondary Energy source? Give examples.	311OE15.1	U
3	List the advantages of Renewable Energy Systems.	311OE15.1	U
4	Give the various common forms of Energy.	311OE15.1	R
5	Mention the total installed capacity of RE sources-based power generation in India.	311OE15.1	U
6	Define Declination angle.	311OE15.2	R
7	What is Concentration Ratio in a Solar Collector?	311OE15.2	R
8	Differentiate between beam and diffused radiation.	311OE15.2	U
9	What are the limitations of solar energy utilization techniques?	311OE15.2	U
10	Compare Thin film, Monocrystalline and Polycrystalline solar cells.	311OE15.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	With Neat diagram explain the Battery Charging system with its key set points.	311OE15.2	A
	or		
12	With neat diagram explain the operation of Pyranometer and Pyrheliometer. (5+5)	311OE15.2	A
13	With neat diagram explain any three solar plate collectors. (4+3+3)	311OE15.2	A
	or		
14	With neat diagram explain the operation of a solar cell and its characteristics.	311OE15.2	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	(a) Analyze the availability and efficiency of conversion of non-conventional energy sources in India. State the important features of availability and efficiency as found from this analysis. (6) (b) List the Advantage and Disadvantages of conventional energy systems. (4)	311OE15.1	AZ
	or		
16	(a) Compare the energy consumption pattern in various sections in India. Discuss the growth rate of energy requirements and power generation in India. (6) (b) Explain the classification of Energy sources (4)	311OE15.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash, Mr.R.Sridhar

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - I			Date/ Session	29.02.24/FN	Marks	50
Course code	EE3011	Course Title	Multilevel Power Converters			
Batch No.		Duration	90 Mins	Academic Year		2021-2022
Year/	III	Semester/ Section	VI	Department		EEE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List the mostly used multilevel converters.	C312.1	R
2	What is basic cell in the generalized topology? Draw its schematic.	C312.1	U
3	Write the equation for the output voltage of a three-level generalized topology.	C312.1	U
4	Mention the advantage of diode clamped topology.	C312.1	U
5	What is flying capacitor?	C312.1	U
6	Define amplitude modulation index.	C312.2	R
7	List the advantages of cascaded H-bridge multilevel converter.	C312.2	U
8	Classify the carrier-based modulation schemes.	C312.2	R
9	Write the expression for the number of voltage levels in a CHB inverter.	C312.2	U
10	When the rotation of switching patterns is required?	C312.2	A

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.a	Explain the working of four-level diode clamped topology with neat sketch and switching states.	C312.1	AZ, E
	OR		
11.b	Explain the working of three-level generalized topology with neat sketch and switching states.	C312.1	AZ, E
12.a	Discuss the phase-shifted modulation used in CHB multilevel converters in detail.	C312.2	A, E
	OR		
12.b	Write a detailed note on staircase modulation technique applied for CHB multilevel converters with suitable example.	C312.2	A, E

Part – C Answer all the questions

Q. No.	Questions	CO	Skills
13.a	With neat diagram, explain the operation of five-level cascaded multilevel converter topology using switching table.	C312.1	AZ, E
	OR		
13.b	With neat diagram, explain the operation of five-level flying capacitor multilevel converter topology with respective switching states.	C312.1	AZ, E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	02/03/2024	Marks	50
Course code	EE3020	**Course Title**	Smart automation systems			
Batch No.		**Duration**	90 mins	**Academic Year**	2024	
Year	III rd	**Semester/ Section**	VI / A	**Department**	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No	Question	CO	Skills
1	Define Wireless Sensor Networks	C315OE4V35.1	AZ
2	List out the difference between sensors and actuators.	C315OE4V35.1	AZ
3	What is M2M communication?	C315OE4V35.1	U
4	Define sensitivity and resolution.	C315OE4V35.1	A
5	What is an MQTT broker?	C315OE4V35.1	U
6	What is LoRa technology and how does it work?	C315OE4V35.1	AZ
7	What is a "smart-sensor" and what are the advantages and disadvantages?	C315OE4V35.1	U
8	What is a smart home?	C315OE4V35.2	U
9	What are the elements of a home automation system?	C315OE4V35.2	R
10	Give six signal formats that a sensors can produce.	C315OE4V35.1	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q.No	Questions	CO	Skills
11	Explain how smart systems' hardware and software are selected.	C315OE4V35.1	U
	Or		
12	Examine the significance of the following wireless protocols in smart systems: (i) Wi-Fi (ii) Smart Bluetooth (iii) LoWPAN	C315OE4V35.1	U
13	Outline different sensors and actuators used in smart systems.	C315OE4V35.1	A
	Or		
14	Describe about Communication Protocols: MQTT, HTTP and CoAP	C315OE4V35.1	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No	Questions	CO	Skills
15	Explain essential components of smart home automation systems.	C315OE4V35.2	AZ
	Or		
16	Explain the LoRa based home automation system.	C315OE4V35.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In charge: S.Ramprasath /AP/EEE/SCE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	26.02.24/FN	Marks	50
Course code	EE3601	Course Title	Protection and Switchgear			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	VI / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is a switchgear?	C311.1	R
2	What is dead spot or blind spot in a power system?	C311.1	R
3	Define pickup value and plug setting multiplier.	C311.1	R
4	Define protection zone.	C311.1	R
5	What are the different types of earthing?	C311.1	R
6	State the disadvantages of ungrounded neutral.	C311.1	R
7	Name different types of induction relays	C311.2	R
8	Why electromagnetic relays are useful for both ac and dc equipments?	C311.2	U
9	What is meant by directional relay?	C311.2	R
10	Write the universal torque equation of relay.	C311.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about basic requirements of protective relaying.	C311.1	R
	OR		
12	Explain in detail about different zones of protection.	C311.1	R
13	With neat sketches explain the types of electromagnetic attraction type relays.	C311.2	A
	OR		
14	Explain in detail the construction and working of induction type overcurrent relay and explain how it can be converted into directional relay?	C311.2	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Explain in detail about solid grounding and resistance grounding with necessary phasor diagrams.	C311.1	U
	OR		
16	Explain arc suppression coil earthing with neat diagram.	C311.1	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty: Dr.C.Krishnakumar Professor and Head/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	27.02.24/FN	Marks	50
Course code	EE3602	Course Title	POWER SYSTEM OPERATION AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	VI / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	What is the need for voltage and frequency regulation in power system?	C311.1	A
2.	What is Load duration curve?	C311.1	R
3.	List out the requirements of a good power system	C311.1	R
4.	What is the purpose of secondary ALFC?	C311.1	AZ
5.	What is the need for load forecasting?	C311.1	AZ
6.	Define area control error.	C311.1	R
7.	What is Demand factor and Diversity factor?	C311.1	R
8.	Show the conditions necessary for sharing load operating in parallel between the two synchronous machines	C311.2	AZ
9.	List the components of speed governing mechanism	C311.2	AZ
10.	What is the advantage of AVR loop over ALFC?	C311.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	A generating station has the following daily load cycle. Time(hrs): 0-6 | 6-10 | 10-12 | 12-16 | 16-20 | 20-24 Load(MW): 40 | 50 | 60 | 50 | 70 | 40 Draw the load curve and load duration curve and find Max demand, Diversity factor, Units generated/day, Average load, Load factor.	C311.1	U, A
	OR		
12.	Draw and explain the basic P-f and Q-V control loops.	C311.1	U, A
13.	Two generators rated 200 MW and 400 MW are operating in parallel. The droop characteristics of their governors are 4% and 5% respectively from no load to full load. Assuming that the generators are operating at 50 Hz at no load, how would a load of 500 MW be shared between them? What will be the system frequency at this load? Assume free governor operation. Determine the load sharing between the two generators	C311.1	R, AZ
	OR		
14.	What are the components of speed governor system of an alternator? Derive a transfer function and sketch block diagram.	C311.1	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Derive the transfer function of an uncontrolled load frequency control of a single area system and derive the expression for static error following a step load change	C311.1	R, A
	OR		
16	The data pertaining to a single area power system with linear load frequency characteristic are as follows. Rated Capacity = 2000 MW. System Load = 1000 MW Inertia Constant = 5 sec, Speed regulation = 0.03 pu, Load damping factor = 1 pu, Normal Frequency = 50Hz. Governor Time constant a sec and Turbine time constant = 0 sec. For a sudden change in load of 20 MW, determine the steady state frequency deviation and the change in generation in MW and reduction in original load in MW.	C311.1	U

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – III			Date/ Session	30.12.23 & FN	Marks	50
Course code	EC8353	Course Title	Electron Devices and Circuits			
Batch No.		Duration	90 mins	Academic Year	2023-2024/ ODD	
Year	II	Semester	III	Department	EEE	

Part – A (20 Marks)
(Answer all the Questions 5 x 2=10 Marks)

Q. No.	Questions	CO	Skills
1	Define CMRR of a differential amplifier.	C205.5	U
2	A Multistage amplifier employs 5 stages each of which has a power gain of 30dB. What is the Overall gain in dB.	C205.5	AZ
3	Draw the circuit diagram of CE amplifier.	C205.5	R
4	A tuned amplifier has its maximum gain at a frequency of 2MHz and has a bandwidth of 50KHz. Calculate the Q factor.	C205.5	A
5	When two signals V_1 and V_2 are connected to the two inputs of a differential amplifier, Define a differential signal (V_d) and common mode signal (V_c).	C205.5	AZ
6	Comparison between small signal and large signal amplifier.	C205.5	R
7	Sketch the block diagram of positive feedback amplifier.	C205.6	U
8	List the classification of oscillator based on frequency response.	C205.6	U
9	Draw the equivalent circuit of Crystal Oscillator with its frequency of vibration.	C205.6	R
10	State Barkhausen criterion.	C205.6	R

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Illustrate the operation of symmetrical Emitter Coupled Differential Amplifier with a neat circuit diagram in 1) differential mode and 2) Common mode.	C205.5	A
	Or		
12	i) Discuss any one of the method of coupling multistage amplifier. ii) Write short notes on single tuned Capacitive Coupled Transistor Amplifier.	C205.5	R
13	Explain the working of Push Pull Class B Amplifier with a neat diagram.	C205.5	U
	Or		
14	i) Discuss the operation of class A amplifier. (5) ii) Discuss about Hazeltine neutralization	C205.5	U

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Draw the circuit of a Colpitt's oscillator, explain its working and also derive the condition for the frequency of oscillation	C205.6	A
	Or		
16	i) Discuss the working RC phase shift oscillator with a neat diagram.(6) ii) In a Hartley oscillatorL1=20 micro Henry, L2=2 mH, while the frequency varies from 950 KHz to 2050 KHz. Calculate the range over which the capacitor is varied.(4)	C205.6	U/AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned eagainst each question

Faculty Name : Ms. C.Pearline Kamalini AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	28-12-2023 /FN	Marks	50
Course code	EE3302	Course Title	Digital Logic Circuits			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	II	Semester/ Section	III/A	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Compare PAL and PROM.	C201.4	R
2	What are hazards.	C201.4	U
3	Compare synchronous counter and Asynchronous counter.	C201.4	U
4	What is meant by state assignment ?	C201.4	U
5	Define transition table.	C201.4	U
6	Define entity block.	C201.5	A
7	Mention the different types of VHDL opertors.	C201.5	U
8	Draw the circuit for T flip flop.	C201.3	U,A
9	Define modulo counters.	C201.3	U,A
10	Write the application of flip flops.	C201.3	U,A

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11 a	Explain about PROM with suitable example.	C201.4	E
11 b	Explain about PAL with suitable example.	C201.4	E
	Or		
12	Construct PLA for the following functions. **Y_1 = AB'C +A'C** **Y_2 = A'B+B'C+C'A** **Y_3 = A'B'C'**	C201.4	E
13	Explain about VHDL programming structures.	C201.5	U,A
	Or		
14	Explain about JK and D flip flops.	C201.5	U

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Construct 3 bit Asynchronous UP counter and down counter .	C201.3	E
	Or		
16	Construct a modulo 10 with necessary sequential circuits.	C201.3	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff Incharge: Dr.M.MARIMUTHU / Asst. Prof / EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date/Session	27-12-2023 /FN	Marks	50
Course code	EE 3301	Course Title	ELECTROMAGNETIC FIELDS			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/Section	III/ A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Write down the magnetic boundary conditions for two media having different permeabilities.	203.4	R
2	What is energy density in the magnetic field?	203.4	R
3	Write down the expression for magnetic field at the centre of circular loop.	203.4	U
4	Classify magnetic materials in terms of permeability.	203.4	R
5	State the significance of displacement current.	203.5	U
6	What are the major differences between circuit theory and field theory?	203.5	U
7	State Maxwells fourth equation.	203.5	R
8	Mention the properties of uniform plane waves.	203.6	R
9	Define intrinsic impedance of a medium.	203.6	R
10	Find out the skin depth in copper whose conductivity is 5.8 X 10^7 Siemens per metre and relative permeability is 1 at 10GHz.	203.6	A

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Derive the boundary conditions for magnetostatics	203.4	A
	Or		
12	i)Derive the expression for torque of a square loop carrying current I and placed in a uniform magnetic field. (7) ii)What is the maximum torque on a square loop of 1000 turns in a field of uniform flux density of 1 Tesla? The loop has 10 cm sides and carries a current of 3A. What is the magnetic moment of the loop? (6)	203.4	E
13	Derive the Maxwells Equations in both differential and integral forms.	203.5	A
	Or		
14	i)Write a technical note on motional emf. ii)A parallel-plate capacitor with plate area of 5 cm^2 and plate separation of 3 mm has a voltage $50\sin10^3t$ applied to its plates. Calculate the displacement current assuming $\epsilon=2\epsilon_o$.	203.5	E

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Define wave. Derive the wave equations in terms of E and H for a lossy medium.	203.6	A
	Or		

16	**A uniform plane wave of a damp soil has $\sigma = 20 \times 10^{-3}$ Siemes per metre, $\varepsilon = 2\varepsilon_o$ and $\mu = \mu_o$ having a frequency of 1 MHz. Calculate** **i)Attenuation constant** **ii)Phase constant** **iii)Propagation constant** **iv)Intrinsic impedance** **v)Wave length and its velocity**	**203.6**	**AZ**

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Name of the faculty : Prof.B.Paranthagan

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	06.11.2023/FN	Marks	50
Course code	EE3012	Course Title	Electrical Drives			
Batch No.		Duration	90 mins	Academic Year	2023	
Year/	III rd	Semester/ Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No	Question	CO	Skills
1	What is meant by plugging in Induction Motor?	C306PE3V24.4	AZ
2	What is meant by slip power?	C306PE3V24.4	AZ
3	What are the disadvantages of square wave inverter in induction motor drive?	C306PE3V24.4	U
4	What is constant V/F control?	C306PE3V24.4	A
5	Mention the advantage of IM fed drive over DC drive.	C306PE3V24.4	U
6	Write the expression to find the starting torque of 3 phase IM	C306PE3V24.5	AZ
7	Draw the T-N characteristics of 3 phase IM.	C306PE3V24.5	U
8	What is meant by margin angle of commutation?	C306PE3V24.5	U
9	What is self-control mode of synchronous motors?	C306PE3V24.5	R
10	Bring out the advantages of CSI over VSI fed induction motor drives	C306PE3V24.5	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q.No	Questions	CO	Skills
11	Explain the speed control scheme of IM drive with stator voltage control and also state the disadvantage of this method.	C306PE3V24.4	U
	Or		
12	Explain the operation of v/f control technique of speed control method for induction motor.	C306PE3V24.4	U
13	Explain closed loop speed control schemes for VSI fed drives.	C306PE3V24.5	A
	Or		
14	Explain the self-control mode of synchronous motor in detail	C306PE3V24.5	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No	Questions	CO	Skills
15	A three phase star connected 60 Hz, 4 pole induction motor has following parameters for equivalent circuit $R_s=R_r'=0.024\Omega$ and $X_s=X_r'=0.12\Omega$. The motor is controlled by variable frequency control with constant (V/F) ratio for operating frequency of 12 Hz calculate a) The breakdown torque as a ratio of its value at the rated frequency b) The starting torque and rotor current in terms of their values at the rated frequency	C306PE3V24.4	AZ
16	A 3 KW, 400 V , 50 Hz, 4 pole ,1370 rpm, delta connected squirrel cage induction motor has the following parameters referred to stator .R_s= 2 Ω, $X_s = X_r^l$ = 5 Ω, R_r^l= 5 Ω, X_m= 90 Ω. Motor speed is controlled by stator voltage control. When driving a fan load it runs at rated speed at rated voltage. Calculate (1) Motor terminal voltage, current and torque at 1200 rpm (2) Motor speed, current and torque for the terminal voltage of 300 V.	C306PE3V24.4	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In charge: S.Ramprasath /AP/EEE/SCE

Saranathan College of Engineering
Tiruchirappalli

Internal Assessment Test – III			Date/ Session	04/10/2023 & FN	Marks	50
Course code	EE3014	Course Title	Power Electronics for Renewable Energy Systems			
Batch No.		Duration	90 mins	Academic Year	2023-2024/ ODD	
Year	III	Semester	V	Department	EEE	

Part – A (20 Marks)

(Answer all the Questions 5 * 2=10 Marks)

Q. No.	Questions	CO	Skills
1	Give any two environmental aspect of electric energy conversion.	C305PE1V26.1	U
2	What are the compositions of Green House Gases?	C305PE1V26.1	R
3	What is Hydrogen Energy?	C305PE1V26.1	R
4	What is Ocean energy and mention its types?	C305PE1V26.1	U
5	Distinguish between HAWT and VAWT.	C305PE1V26.1	U
6	Sketch the block diagram of WECS.	C305PE1V26.2	U
7	What is the working principle of Induction Generator?	C305PE1V26.2	U
8	What is line commutated Inverter?	C305PE1V26.3	R
9	What are the factors to be considered in selection of converter on SPV system?	C305PE1V26.3	U
10	Define Depth Of Discharge.	C305PE1V26.3	U

Part – B

(Answer all the questions 2 * 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(i) What is a Fuel cell and List the classifications (4) (ii) Explain the working principle of any one of the fuel cell with a net diagram.(6)	C305PE 1V26.1	U
	Or		
12	Mention the classification of Biomass energy generation and discuss any one of the method with a neat diagram.	C305PE 1V26.1	U
13	Explain the construction and working of permanent Magnet Synchronous Generator with its advantages and disadvantages.	C305PE 1V26.2	U
	Or		
14	Discuss the construction and working of Doubly Fed Induction Generator with a neat diagram.	C305PE 1V26.2	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	List the types of SPV system and explain the Stand alone SPV system with a neat diagram.	C305PE 1V26.3	U
	Or		
16	With a neat flow chart explain the procedure of PV array sizing	C305PE 1V26.3	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned eagainst each question

Faculty Name : Dr.M.V.Suganyadevi, ASP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - 3			Date/ Session	02/11/2023	Marks	50
Course code	EE3016	Course Title	EMBEDDED SYSTEM DESIGN			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	V	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the need for device drivers?	304PE1V31.3	U
2	What are the drawbacks of busy-wait transfer mode for the I/O devices?	304PE1V31.3	U
3	Write few advantages interrupt driven data transfer.	304PE1V31.3	U
4	How is the vector address used for an interrupt source?	304PE1V31.3	R
5	Write some features of Interrupt Service Routine (ISR).	304PE1V31.3	R
6	What are the types of device drivers?	304PE1V31.3	R
7	Write the difference between a device diver and trap handler.	304PE1V31.3	U
8	What are the models used in EDLC?	304PE1V31.5	R
9	Define deployment phase.	304PE1V31.5	R
10	Write the objective of EDLC.	304PE1V31.5	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	With suitable examples, explain the different phases of EDLC with illustrations.	304PE1V31.5	A
	or		
12	Illustrate in detail, about the waterfall and fountain models of EDLC	304PE1V31.5	A
13	With neat diagram, explain the application of embedded system in Autonomous Car.	304PE1V31.5	A
	or		
14	With neat diagram, explain the application of embedded devices in smart Agriculture system.	304PE1V31.5	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	(i) With a suitable example, explain the busy-wait approach for an I/O port. (7) (ii) With neat diagram explain series device driver (3)	304PE1V31.6	A
	or		
16	(i) With a suitable example, explain Interrupt Service Routine (ISR) in an Embedded System. (6) (ii) With neat diagram explain parallel device driver (4)	304PE1V31.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - III			Date/ Session	09.11.2023/FN	Marks	50
Course code	EE3501	Course Title	Power System Analysis			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	III	Semester/ Section	V	Department		EEE

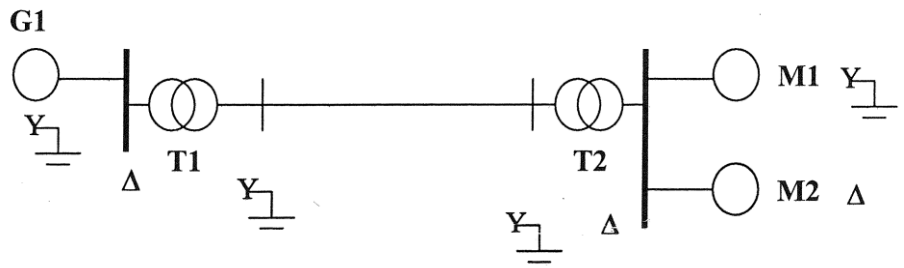
Part – A

(Answer all the questions 10 × 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define operator ‘a’ and express the value of ‘a’ and ‘a^2’ in both polar and rectangular form.	C301.4	AZ
2	Define negative sequence and zero sequence components.	C301.4	AZ
3	Draw the zero sequence impedance equivalent circuit for Δ-Δ type three phase transformer.	C301.4	A
4	Define positive sequence impedance.	C301.4	U
5	Write the boundary conditions in single line to ground fault.	C301.4	U
6	Draw the sequence network connections corresponding to L-L fault at bus.	C301.4	AZ
7	Define infinite bus in a power system.	C301.5	U
8	What is transient stability?	C301.5	U
9	What is meant by power angle curve?	C301.5	AZ
10	Define critical clearing angle.	C301.5	AZ

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	The reactance of an alternator rated 10 MVA, 6.9 kV are $X_1=X_2=15\%$ and $X_{g0}=5\%$. The neutral of the alternator is grounded through a reactance of 0.38Ω. Single line to ground (SLG) fault occurs at the terminals of the alternator. Determine the line currents, fault current and the terminal voltages.	C301.4	E
	OR		
12.	A single line to ground fault (phase a) occurs in a transmission system at transformer T1 star terminal. Draw the sequence network. Find current fed to fault. Given : Rating of generator is 1200 kVA, 600 V with $X_1 = X_2 = 10\%$, $X_0 = 5\%$ Rating of each machine is 600 kVA, 600 V with $X_1 = X_2 = 12\%$,$X_0 = 6\%$ Each transformer is rated 1200 MVA, 600 V on delta side and 3.3 kV on star side, with leakage reactance of 5%. Reactance of the transmission line is $X_1= 10\%$, $X_2= 10\%$, $X_0= 20\%$.	C301.4	E

Q. No.	Questions	CO	Skills
			
13.	Derive swing equation for a single machine connected to infinite bus system. State the usefulness of this equation.	C301.5	E
	OR		
14.	State and explain equal area criterion and discuss how you will apply it to fine the maximum additional load that can be suddenly added.	C301.5	E

Part – C Answer all the questions

Q. No.	Questions	CO	Skills
15.	Examine the sequence network for a double line to ground (LLG) fault.	C301.4	E
	OR		
16.	Derive the relationship for fault currents in terms of symmetrical components when there is a line-to-ground (L-G) fault on phase a. Also draw a diagram showing interconnection of sequence networks for L-G fault.	C301.4	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date	07-11-2023	Marks	50
Course code	EE3591	Course Title	Power Electronics			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define space vector modulation.	C302.2	R
2	Define duty cycle.	C302.2	R
3	Define CSI	C302.2	R
4	Define multiple pulse modulation in inverters.	C302.2	R
5	Write the application of snubber circuits.	C302.1	U
6	Define switching loss in converters.	C302.1	R
7	Define SMPS.	C302.1	R
8	Write the relation for output voltage and input voltage in buck converter.	C302.1	E
9	Calculate the output voltage in buck-boost converter, supplied with input voltage of 12 V and 50% duty cycle.	C302.1	E
10	Write the application of resonant converters.	C302.1	U

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of boost converter with necessary waveforms.	C302.1	U
	or		
12	Explain the operation of buck boost converter with necessary waveforms.	C302.1	U
13	Explain any two isolated topologies in converters.	C302.1	R
	or		
14	Explain the operation of resonant converters with neat circuit diagrams.	C302.1	R
15	Explain in detail about voltage control of single phase inverters.	C302.2	R
	or		
16	Explain in detail about harmonics elimination techniques in inverters	C302.2	R

]Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty in charge : Dr M.Marimuthu AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III				Date/ Session	08.11.2023/FN	Marks	50
Course code	EE3503	Course Title	Control Systems				
Batch No.		Duration	90 mins	Academic Year	2023-2024		
Year	III	Semester	V	Department	EEE		

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Mention frequency domain specifications.	C303.4	R
2.	Define Gain Margin and Phase Margin.	C303.4	R
3.	What are minimal phase transfer functions?	C303.4	U
4.	For the following transfer function draw the polar plot. $G(s) = \frac{1}{s(1+0.2s)(1+0.02s)}$	C303.4	U
5.	Mention the advantages of state space analysis.	C303.5	U
6.	Define Controllability.	C303.5	R
7.	Write the formula for converting state model to transfer function.	C303.5	R
8.	Mention the properties of state transition matrix.	C303.5	U
9.	Draw the pole-zero plot of lead-lag compensator.	C303.6	R
10.	Write the transfer function of PID controller.	C303.6	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Sketch the Bode plot for the following transfer function and determine the system gain "K" for the gain crossover frequency of 5 rad/sec $G(s) = \frac{Ks^2}{(1+0.2s)(1+0.02s)}$	C303.4	AZ
	Or		
12.	Draw the polar plot and determine the gain and phase margin for the following transfer function. $G(s) = \frac{1}{(1+s)(1+2s)}$	C303.4	AZ
13.	Determine the controllability and observability for the following state mode. $\begin{bmatrix}\dot{X}1\\ \dot{X}2\\ \dot{X}3\end{bmatrix} = \begin{bmatrix}0 & 0 & 1\\ -2 & -3 & 0\\ 0 & 2 & -3\end{bmatrix}\begin{bmatrix}X1\\ X2\\ X3\end{bmatrix} + \begin{bmatrix}0\\ 2\\ 0\end{bmatrix}[U] \quad ; \quad [Y] = [1 \quad 0 \quad 0]\begin{bmatrix}X1\\ X2\\ X3\end{bmatrix}$	C303.5	AZ
14.	Determine the state transition matrix for $A=\begin{bmatrix}0 & 1\\ -2 & -3\end{bmatrix}$	C303.5	AZ
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15.	Derive the transfer function of lead compensator and draw the bode plot for it.	C303.6	AZ
	Or		
16.	Describe the design procedure of lag compensator and mention its effects.	C303.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question. Name of the faculty: Mr.R.Sridhar/AP/EEE

Saranathan College of Engineering

Tiruchirapalli-12

Internal Assessment Test - III			Date/ Session	02.01.24/FN	Marks	50
Course code	EE3303	Course Title	Electrical Machines-I			
Batch No.		Duration	90 minutes	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/ A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the function of conservator in transformer?	C210.4	R
2	What are properties of ideal transformer?	C210.4	U
3	Define voltage regulation and transformation ratio of transformer>	C210.4	U
4	The short circuit test is always performed on the high-voltage side of the transformer – Why?	C210.5	U
5	What are the advantages of Sumpners test?	C210.5	R
6	Mention the applications of Auto transformer.	C210.6	E
7	Draw the electric circuit representation of step up auto transformer	C210.6	U
8	A 400/100 V (step down) ordinary transformer utilizes 4kg of copper for making its winding. What is the weight of copper need for same rating of auto transformer?	C210.6	E
9	What is meant by Scott connection of transformer?	C210.6	U
10	List the applications of Scot connection of transformer.	C210.6	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11a	Derive an emf equation of single phase transformer.(8)	C210.4	U,R
11b	The number of primary and secondary turns of an ideal transformer are 150 and 300 respectively. The transformer is connected to a 220V, 50Hz source. Determine (i) turns ratio (ii) mutual flux in the core(5)	C210.4	AZ,E
	or		
12a	Derive the condition of maximum efficiency of transformer (5)	C210.4	U,R
12b	A 25kVA, 2000/200 V transformer has constant loss, i.e. iron loss of 35 w and full load copper loss called the variable loss of 400W. Calculate the efficiency of the transformer at full load and at half load 0.8 pf lagging. (8)	C210.4	AZ,E

Q. No.	Questions	CO	Skills
13.	(a) Prove that the copper material required in an auto-transformer is less when compared to the copper material required in a single phase transformer (6) (b) The primary and secondary voltages of an auto transformer are 500V and 400V respectively. Draw the circuit diagram showing the current distribution in the windings when the secondary current is 200A. Also calculate the amount of copper saved in using an auto transformer(7)	C210.6	U,E
	or		
14.	Explain the different winding connections in 3 phase transformer with neat diagram	C210.6	U,R

PART-C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A single phase transformer with 25kVA, 50Hz,2200/220V has the following results: OC test : 220V , 4.2A, 148W on low-voltage side SC test: 85V, 10.5A, 30W on high-voltage side. Determine: (i) regulation and efficiency at power factor 0.8 lagging at full load, and (ii) power factor on short circuit. Also, obtain the approximate equivalent circuit refereed to high voltage side.	C210.5	AZ,E
	or		
16	A 50kVA, 2400/240V transformer has transformer has a core loss P_i =200W at rated voltage and a copper loss P_{cu} =500W at full load. It has the following load cycle. Determine the all-day efficiency of transformer **% load 0.0% 50% 75% 100% 110%** **p.f - 1 0.8lag 0.9lag 1** **Hours 6 6 6 3 3**	C210.5	AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Faculty Incharge: Mr.P.Ramesh Babu

Saranathan College of Engineering

Tiruchirapalli-12

Internal Assessment Test - III			Date/ Session	30/12/2023	Marks	50
Course code	EE3303	Course Title	Electrical Machines-I			
Batch No.		Duration	90 minutes	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/ A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the function of conservator in transformer?	C210.4	R
2	What are properties of ideal transformer?	C210.4	U
3	Define voltage regulation and transformation ratio of transformer>	C210.4	U
4	The short circuit test is always performed on the high-voltage side of the transformer – Why?	C210.5	U
5	What are the advantages of Sumpners test?	C210.5	R
6	Mention the applications of Auto transformer.	C210.6	E
7	Draw the electric circuit representation of step up auto transformer	C210.6	U
8	A 400/100 V (step down) ordinary transformer utilizes 4kg of copper for making its winding. What is the weight of copper need for same rating of auto transformer?	C210.6	E
9	What is meant by Scott connection of transformer?	C210.6	U
10	List the applications of Scot connection of transformer.	C210.6	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11a	Derive an emf equation of single phase transformer.(8)	C210.4	U,R
11b	The number of primary and secondary turns of an ideal transformer are 150 and 300 respectively. The transformer is connected to a 220V, 50Hz source. Determine (i) turns ratio (ii) mutual flux in the core(5)	C210.4	AZ,E
	or		
12a	Derive the condition of maximum efficiency of transformer (5)	C210.4	U,R
12b	A 25kVA, 2000/200 V transformer has constant loss, i.e. iron loss of 35 w and full load copper loss called the variable loss of 400W. Calculate the efficiency of the transformer at full load and at half load 0.8 pf lagging. (8)	C210.4	AZ,E

Q. No.	Questions	CO	Skills
13.	(a) Prove that the copper material required in an auto-transformer is less when compared to the copper material required in a single phase transformer (6) (b) The primary and secondary voltages of an auto transformer are 500V and 400V respectively. Draw the circuit diagram showing the current distribution in the windings when the secondary current is 200A. Also calculate the amount of copper saved in using an auto transformer(7)	C210.6	U,E
	or		
14.	Explain the different winding connections in 3 phase transformer with neat diagram	C210.6	U,R

PART-C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A single phase transformer with 25kVA, 50Hz,2200/220V has the following results: OC test : 220V , 4.2A, 148W on low-voltage side SC test: 85V, 10.5A, 30W on high-voltage side. Determine: (i) regulation and efficiency at power factor 0.8 lagging at full load, and (ii) power factor on short circuit. Also, obtain the approximate equivalent circuit refereed to high voltage side.	C210.5	AZ,E
	or		
16	A 50kVA, 2400/240V transformer has transformer has a core loss P_i =200W at rated voltage and a copper loss P_{cu} =500W at full load. It has the following load cycle. Determine the all-day efficiency of transformer **% load 0.0% 50% 75% 100% 110%** **p.f - 1 0.8lag 0.9lag 1** **Hours 6 6 6 3 3**	C210.5	AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Faculty Incharge: Mr.P.Ramesh Babu

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - III			Date/ Session	04.11.2023/FN	Marks	50
Course Code	EE8701	Course Title	High Voltage Engineering			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	IV	Semester/ Section	VII	Department		EEE

Part – A

(Answer all the questions 10 × 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is the necessity of high voltage testing?	C401.5	U
2	What is type test and routine test?	C401.5	R
3	What is the significance of power factor tests?	C401.5	AZ
4	Write the standard atmospheric conditions for HV testing as per Indian Standard.	C401.5	A
5	Define disruptive discharge voltage.	C401.5	U
6	What is withstand voltage?	C401.5	R
7	What is Basic impulse insulation level?	C401.5	R
8	How is salt-fog test conducted on insulators?	C401.5	A
9	Define insulation coordination.	C401.5	R
10	State the importance of insulation coordination in power system.	C401.5	AZ

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Describe the working principle and operation of Generating Voltmeter for measuring high DC voltages.	C401.4	A, AZ
	OR		
12.	With neat diagram, discuss the operation of CVT and resistive shunts deployed for measurements.	C401.4	A, AZ
13.	Explain the different high voltage tests conducted on bushings.	C401.5	A, AZ
	OR		
14.	Discuss the various tests carried out in a circuit breaker at HV labs.	C401.5	A, AZ
	Part – C (Answer all the questions)		
15.	Explain in sequence the various high voltage test being carried out in a power transformer.	C401.5	AZ
	OR		
16.	Explain in detail about the insulation coordination.	C401.5	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	08.11.2023/FN	Marks	50
Course code	EE8702	Course Title	POWER SYSTEM OPERATION AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	IV	Semester/ Section	VII / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Compare unit commitment and economic dispatch	C412.4	A
2.	What is meant by incremental cost curve?	C412.4	R
3.	What are all the points to be noted for an economic load dispatch including transmission losses?	C412.4	R
4.	Define base point and participation factor	C412.4	AZ
5.	What are cold reserves and hot reserves?	C412.5	AZ
6.	List some important control system functions	C412.5	R
7.	What are the different states of power system	C412.5	R
8.	Define state estimation?	C412.6	A
9.	Write the principle of operation of PMU.	C412.6	U
10.	What are the functions of EMS?	C412.6	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	There are three thermal generating units which can be committed to take the system load. The fuel cost data and generation operating unit data are given below: $F1 = 392.7 + 5.544\ P_1 + 0.001093\ P_1^2$ $F2 = 217 + 5.495\ P_2 + 0.001358\ P_2^2$ $F3 = 65.5 + 6.695\ P_3 + 0.004049\ P_3^2$ P 1 , P 2 , P 3 in MW Generation limits: $150 \leq P_1 \leq 600$ MW; $100 \leq P_2 \leq 400$; $50 \leq P_3 \leq 200$ MW There are no other constraints on system operation. Obtain an optimum unit commitment table. Show the details of economic schedule and the total costs of operation for each feasible combination of units for the load level of 900MW	C412.4	U, A
	OR		
12.	The fuel inputs per hour of plants 1 and 2 are given as $F1 = 0.2P_1^2 + 40P_1 + 120 Rs/hr.$ $F2 = 0.25P_2^2 + 30P_2 + 150 Rs/hr.$ Calculate the economic operating schedule and the corresponding cost of generation. The maximum and the minimum loading on each unit are 100MW and 25MW. Assume the transmission losses are ignored and the total demands 180MW.	C412.4	U, A
13.	Draw the block diagram to show the hardware configuration of a SCADA system and explain the application of SCADA in monitoring and control of power system.	C412.5	R, AZ
	OR		
14.	Draw and explain the state transition diagram of a power system showing different sets of operating states classified according to security level.	C412.5	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	The fuel input data for a three plant system are: $f1 = 0.01\ P_1^2 + 1.7\ P_1 + 300$ Millions of BTU / hour	C412.4	R, A

	f2 = 0.02 $P_2^{\,2}$ + 2.4 P_2 + 400 Millions of BTU / hour f3 = 0.02 $P_3^{\,2}$ + 1.125 P_3 + 275 Millions of BTU / hour where Pi's are the generation powers in MW. The fuel cost of the plants are Rs 50, Rs 30 and Rs 40 per Million of BTU for the plants 1,2 and 3 respectively. The loss coefficient matrix expressed is $B = \begin{bmatrix} 0.005 & -0.0005 & -0.001 \\ -0.0005 & 0.01 & -0.0015 \\ -0.001 & -0.0015 & 0.0125 \end{bmatrix}$ The load on the system is 60 MW. Compute the power dispatch for lambda= 120 Rs /MWh. Calculate the transmission loss.		
	OR		
16	Determine the economic operation point for the three thermal units delivering a total load of 600MW without considering generator limit as well as with considering generator limit. Given; Unit 1: maximum output = 600MW, minimum output = 150MW The fuel cost function is $F1(P_1) = 550+7.7\ P_1+0.00165\ P_1^2$Rs/hr Unit 2: coal fired : maximum output = 500MW, minimum output= 125MW The fuel cost function is $F1(P_2) = 300+7.88\ P_2+0.002\ P_2^2$ Rs/hr Unit 3: coal fired : maximum output = 600MW, minimum output = 150MW The fuel cost function $F3(P_3) =80+7.99\ P_3+0.005\ P_3^2$ Rs/hr Without considering generator limits is similar to without considering losses. With generator limits is similar to considering generator losses.	C412.4	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Staff Incharge: Dr.M.V.Suganyadevi, ASP/EEE

Saranathan College of Engineering
Tiruchirappalli - 620012

Internal Assessment Test – III			Date/Session	07.11.2023/FN	Marks	50
Course code	EI8075	Course Title	Fiber Optics and Laser Instruments			
Batch No.		Duration	1 ½ hours	Academic Year	2023 - 2024/ODD	
Year	IV	Semester	07	Department	EEE	

Part – A (20 Marks)

I. Answer all the questions **(10x2=20 Marks)**

Q. No.	Questions	CO	Skills
1.	Classify the common types of lasers used for material processing.	C404-E31.4	R
2.	Point out the application of laser trimming and welding.	C404-E31.4	R
3.	Define laser vaporization.	C404-E31.4	R
4.	Apply the techniques used for distance measurement using Laser.	C404-E31.4	U
5.	. Write the active material in laser.	C404-E31.4	AZ
6.	Write any two industrial applications of laser.	C404-E31. 4	R
7.	Discuss the principle involved in holographic inferometry	C404-E31.5	R
8.	Compare hologram and photographic film	C404-E31.5	A
9.	Summarize the advantages of laser surgery	C404-E31.5	U
10.	. List the potential applications of Holographic interferometry.	C404-E31.5	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Describe the principle of lasers for measurement of length with neat block diagram.	C404-E31.4	U
	Or		
12	Describe about Laser Doppler Velocimetry for Fluid velocity and acceleration measurement	C404-E31.4	U
13	Explain how the laser is used in material processing.	C404-E31.4	U
	Or		
14	Describe the apparatus used for laser drilling and explain its working	C404-E31.4	AZ

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q.No.	Questions	CO	Skills
15	Examine the need of holography and compare holography with commercial photographic techniques and explain in detail	C404-E31.5	U
	Or		
16	Analyze the principles of holographic inferometry and its application in Non destructive Testing of materials.	C404-E31.5	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: S.Vigneshwaran

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – III			Date/ Session	02.11.2023/FN	Marks	50
Course code	EE8010	Course Title	POWER SYSTEM TRANSIENTS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester/ Section	VII	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	What are the specifications of travelling waves?	C405PE45.4	U
2.	Define reflection coefficient.	C405PE45.4	R
3.	What is surge impedance in transmission line?	C405PE45.4	U
4.	What are standing waves?	C405PE45.5	U
5.	Define standing wave ratio.	C405PE45.5	R
6.	How will you calculate the probability of strikes for an overhead line?	C405PE45.5	R
7.	What are the effects of load rejection in power system?	C405PE45.6	R
8.	What are the popular time domain computer programs for transient analysis?	C405PE45.6	U
9.	Draw the Norton's equivalent circuit to model a capacitor in a network for EMTP calculations.	C405PE45.6	R
10.	What are the applications of EMTP?	C405PE45.6	R

Part – B
(Answer all the questions 2 x 10 = 20marks

Q.No.	Questions	CO	Skills
11.	Derive the reflection and refraction coefficients of travelling waves.	C405PE45.4	AZ
	Or		
12.	Explain the transient response of the system with series and shunt distributed parameters.	C405PE45.4	AZ
13.	Explore the steps involved in Bewley's Lattice diagram with single and multiple terminations	C405PE45.4	AZ
	Or		
14.	Explain the behaviour of travelling waves at open and short-circuited line.	C45PE45.4	AZ

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15.	Discuss in detail about the kilometric fault with necessary diagrams and waveforms. Derive the expression for source impedance and recovery voltage wave.	C405PE45.5	AZ
	Or		
16.	Explain the switching surges in power system and also outline the concept of line dropping and load rejection in power systems.	C405PE45.5	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Prepared by: Mr.R.Sridhar (AP / EEE)

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			**Date/ Session**	09.11.2023/FN	**Marks**	50
Course code	EE8017	**Course Title**	HIGH VOLTAGE DIRECT CURRENT TRANSMISSION			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024	
Year	IV	**Semester/ Section**	VII	**Department**	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are non-characteristic harmonics?	C409PE63.4	R
2	Differentiate DC filters from AC filters.	C409PE63.4	U
3	State the ill effects of harmonics injected in to AC line.	C409PE63.4	U
4	Mention the ways to mitigate harmonics.	C409PE63.4	R
5	What are the main effects of unbalance voltage?	C409PE63.4	U
6	How the online and offline simulators differ?	C409PE63.5	U
7	Mention any two software tools, which support HVDC system study.	C409PE63.5	R
8	What is parity simulator?	C409PE63.5	R
9	Draw the schematic of a DC converter system	C409PE63.5	U
10	What are the solution methods adopted for power flow analysis?	C409PE63.5	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Discuss the principle of operation and V-I characteristics of SVC and STATCOM	C409PE63.4	A
	or		
12	(i) State the various sources of harmonics generated in a VSC-HVDC system and mention its adverse effects. (5) (ii) Explain the operation of Unified Power Flow Controller and also state its advantages. (5)	C409PE63.4	A
13	Explain in detail, the per unit system of DC quantities including constraints.	C409PE63.5	A
	or		
14	Explain in detail, the power flow analysis under dynamic conditions.	C409PE63.5	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	Explain in detail, the power flow analysis of VSC based HVDC systems.	C409PE63.6	AZ
	or		
16	What metrics are considered in the design of AC filters? Provide the steps involved in the design of single tuned filter.	C409PE63.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - III			Date/ Session	06.11.2023/FN	Marks	50
Course code	EE8703	Course Title	Renewable Energy Systems			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester	VII	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	List out the necessity of surge tank in hydropower plant.	C403.4	R
2	Describe Geothermal gradient.	C403.4	U
3	What are the various types of hydropower plants?	C403.4	R
4	Summarize various types of geothermal power plants used	C403.4	U
5	Name the constituents of biogas	C403.4	R
6	Give the overall efficiency of an OTEC power plant.	C403.5	R
7	List methods of Hydrogen Energy Storage.	C403.5	U
8	Define the following terms a) Forebay b) Penstock c) Tailrace.	C403.5	R
9	Mention the components of micro hydro scheme.	C403.5	U
10	Define hybrid energy systems.	C403.5	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of the following Reaction turbines: I) Francis II) Kaplan	C403.4	A
	Or		
12	Discuss the following methods of biogas generation I) Gasification II) Anaerobic Digestion	C403.4	A
13	Discuss the following: I) OTEC open cycle II) OTEC closed (Anderson) cycle.	C403.5	A
	Or		
14	Explain the operation of hydrogen energy system with schematic diagram.	C403.5	A

Part – C
(Answer all the questions 1 x 10 = 10 marks)

15	Define hybrid system. Discuss the need for hybrid system, its range and its types.	C403.5	A
	Or		
16	Explain the 'single-basin' and 'two-basin' systems of tidal power harnessing. Further, discuss their advantages and limitations.	C403.5	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty: Dr. C. Krishnakumar, Prof & Head / EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	5-10-23	Marks	50
Course code	EE3012	Course Title	Electrical Drives			
Batch No.		Duration	90 mins	Academic Year	2023	
Year/	III rd	Semester/ Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No	Question	CO	Skills
1	In a single quadrant MOSFET chopper fed dc motor operated at a duty cycle of 0.8, the average value of the motor current (which is continuous) is 10 amps, what is the average value of the MOSFET current?	C306PE3V24.3	AZ
2	It is required to implement a chopper-fed control of a 12 V DC motor. Which power electronic switch (IGBT or MOSFET) is preferred? Why?	C306PE3V24.3	AZ
3	List the converters used to perform four quadrant operations in DC motor.	C306PE3V24.3	U
4	What are the advantages of operating choppers at high frequency?	C306PE3V24.3	A
5	What is Time ratio Control & Current limit control?	C306PE3V24.3	U
6	What is the function of the current limiter?	C306PE3V24.6	AZ
7	Explain the advantages of closed-loop control.	C306PE3V24.6	U
8	List the methods of speed sensing.	C306PE3V24.6	U
9	Write down the transfer function expression of the converter.	C306PE3V24.6	R
10	Give the advantages of the PI controller.	C306PE3V24.6	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q.No	Questions	CO	Skills
11	Explain in detail the chopper control of separately excited dc motor under motoring mode and Regenerative breaking mode	C306PE3V24.3	U
	Or		
12a	Describe the operation of a four-quadrant chopper fed separately excited DC motor with a neat diagram.	C306PE3V24.3	U
12b	Discuss the different control techniques of the chopper in detail.	C306PE3V24.3	U
13	Explain the basic principles and derive the transfer function for a separately excited DC motor load system.	C306PE3V24.6	A
	Or		
14	With a neat diagram, discuss the operation of a closed-loop scheme for speed control of a DC motor, below and above the base speed.	C306PE3V24.6	U

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q.No	Questions	CO	Skills
15	A 220 volts, 1500 rpm, 10 Amps separately excited dc motor has an armature resistance of 0.5 Ω is fed from a three-phase fully controlled rectifier. The Available AC source has a line voltage of 400 volts, 50 Hz. A star-delta connected transformer is used to feed the armature so that motor terminal voltage equals rated voltage when the converter firing angle is zero. Calculate transformer turns ratio. Determine the value of firing angle when a) The Motor is running at 1200 rpm and rated torque b) When a motor is running at (-800 rpm) and twice the rated torque. Assume continuous conduction.	C306PE3V24.6	AZ
16	Derive the transfer function of closed loop system having outer speed loop and inner current loop.	C306PE3V24.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty In charge: S.Ramprasath /AP/EEE/SCE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	03/10/2023	Marks	50
Course code	EE3016	**Course Title**	EMBEDDED SYSTEM DESIGN			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024	
Year	III	**Semester/ Section**	V	**Department**	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Mention the features of CAN bus.	304PE1V31.2	U
2	Differentiate SPI and I^2C protocols.	304PE1V31.2	U
3	Draw the block diagram of Interrupt mechanism in RTOS.	304PE1V31.4	R
4	What is context switching?	304PE1V31.4	R
5	Define process and threads in RTOS.	304PE1V31.4	R
6	Differentiate Mailbox and Message Queue.	304PE1V31.4	U
7	Define threading and multithreading	304PE1V31.6	R
8	Define task and task states.	304PE1V31.6	R
9	What are the functions of RTOS?	304PE1V31.6	R
10	Give the limitations of Polling technique.	304PE1V31.6	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Explain in details about SPI communication protocol and its interfacing technique	304PE1V31.2	A
	or		
12	Write short notes on (i) CAN bus (ii) I^2C bus (5+5)	304PE1V31.2	A
13	Explain about the Preemptive and non-preemptive scheduling with all its types, including its advantages and disadvantages	304PE1V31.4	A
	or		
14	Write short notes on pipes, priority inversion, priority inheritance. (3+3+4)	304PE1V31.4	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	Explain the Inter Process communication using semaphore and message queue	304PE1V31.6	A
	or		
16	Write short notes on various interrupt service routines in RTOS	304PE1V31.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	04-10-2023	Marks	50
Course code	EE3025	Course Title	Electric Vehicle Architecture			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	What is CVT?	C305PE2V41.3	A
2.	List out the various gears in EV.	C305PE2V41.3	R
3.	What is the function of a brake pad in an electric vehicle?	C305PE2V41.3	R
4.	What is vehicle supervisory control?	C305PE2V41.6	A
5.	Define Hybrid vehicle control strategy	C305PE2V41.6	A
6.	What is the objective of modal control strategies in HEV supervisory control?	C305PE2V41.6	R
7.	How does hybrid vehicle control strategy improve fuel efficiency?	C305PE2V41.6	R
8.	Define regenerative braking in a hybrid vehicle	C305PE2V41.6	A
9.	What are the types of forces acting on a moving vehicle?	C305PE2V41.2	U
10.	What is the role of tries in Vehicle?	C305PE2V41.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Explain about the conventional braking system	C305PE2V41.3	U, A
	OR		
12.	Explain about the Electromechanical Brake System in detail.	C305PE2V41.3	U, A
13.	Explain vehicle supervisory control with a neat diagram	C305PE2V41.6	U
	OR		
14.	Explain the Hybrid Modes of series parallel 2x2 HEV.	C305PE2V41.6	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Write about the energy storage system control used in HEV	C305PE2V41.6	R
	OR		
16	Explain the different power flow control modes of a typical parallel hybrid system with the help of block diagrams.	C305PE2V41.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Staff In charge: Dr.M.V.Suganyadevi, ASP/EEE

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

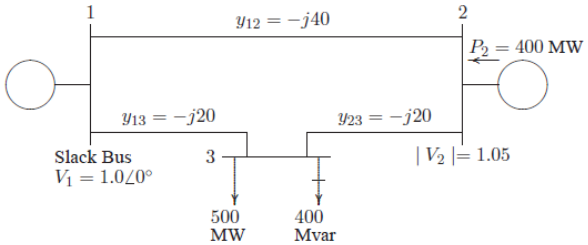
Internal Assessment Test - II			Date/ Session	10.10.23 / FN	Marks	50
Course code	EE3501	Course Title	Power System Analysis			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	III	Semester/ Section	V	Department		EEE

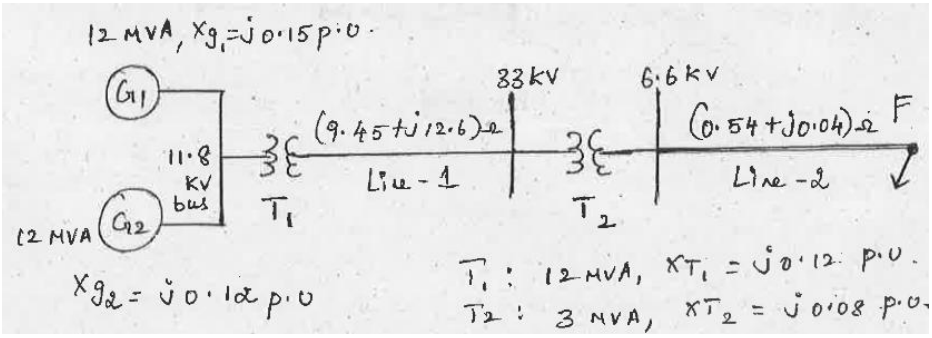
Part – A

(Answer all the questions 10 × 2 = 20marks)

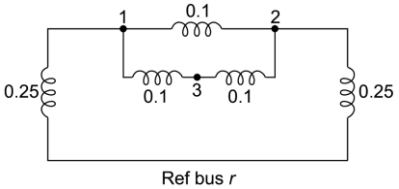
Q. No.	Questions	CO	Skills
1	Compare Gauss-Seidel and Newton Raphson methods.	C301.2	AZ
2	When will the generator bus be treated as load bus?	C301.2	AZ
3	How are the disadvantages of Newton Raphson method overcome?	C301.2	A
4	What is Jacobian matrix?	C301.2	U
5	What is meant by fault calculation?	C301.3	U
6	List the assumptions to be made to simplify the short circuit study.	C301.3	AZ
7	Define fault level.	C301.3	U
8	What do you meant by bolted fault?	C301.3	U
9	Mention the types of faults with their percentage of occurrence in power system.	C301.3	AZ
10	What is the significance of subtransient reactance and transient reactance in short circuit studies?	C301.3	AZ

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Figure 1 shows the one line diagram of a simple three bus power system with generation at buses 1 and 2. The voltage at bus 1 is V=1+j0 V per unit. Voltage magnitude at bus 2 is fixed at 1.05 p.u with a real power generation of 400 MW. A load consisting of 500 MW and 400 MVAr is taken from bus 3. Line admittances are marked in per unit on a 100 MVA base. For the purpose of hand calculations, line resistances and line charging susceptances are neglected.  Fig.1 Using Newton-Raphson method, start with the initial estimates of $V_2^{(0)}$=1.05+j0.0 and $V_3^{(0)}$=1.05+j0.0, and keeping $\|V_2\|$=1.05 p.u., determine the phasor values of V_2 and V_3. Perform one iteration.	C301.2	E
	OR		
12.	With a neat flow chart, explain the computational procedure for load flow solution using Newton Raphson iterative method when the system contains all type of buses.	C301.2	E

Q. No.	Questions	CO	Skills
13.	A 3 – phase 6 MVA, 6.6 kV alternator with a reactance of 12% connected to a feeder of series impedance (0.10+j0.5) Ohm/phase/km through a step up transformer. The transformer is rated at 3 MVA, 6.6 kV/33 kV and has a reactance of 7%. Determine the fault current supplied by the generator operating under no load with a voltage of 6.9 kV when a three phase symmetrical fault occurs at a point 16 km along the feeder.	C301.3	E
	OR		
14.	For the radial network shown in Fig.2, three phase fault occurs at point F. Determine the fault current and the line voltage at 11.8 kV bus under fault condition.  Fig.2	C301.3	E

Part – C Answer all the questions

Q. No.	Questions	CO	Skills
15.	Deduce the Z_{bus} building algorithm. Illustrate the step by step procedure of Z_{bus} formulation.	C301.3	C
	OR		
16.	For the 3-bus network shown in Fig.3, obtain Z_{bus} by building algorithm.  Fig.3	C301.3	C

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	09.10.23/FN	Marks	50
Course code	EE3503	Course Title	Control Systems			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester	V	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is time response?	C303.2	U
2.	What is the importance of test signals?	C303.2	U
3.	Differentiate type and order of the system.	C303.2	R
4.	Mention time domain specifications.	C303.2	R
5.	Define steady state error.	C303.2	R
6.	State Routh Hurwitz criterion.	C303.3	R
7.	What is limitedly stable system?	C303.3	U
8.	Define BIBO stability.	C303.3	R
9.	What is the effect of adding poles in root locus?	C303.3	U
10.	Mention the Magnitude criterion in root locus.	C303.3	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	The loop transfer function of the unity feedback system is given by G(s)=K/s(sT+1), where K and T are constants. By what factor should the amplifier gain K be reduces, so that the peak overshoot of unit step response of the system is reduced from 75% to 25%.	C303.2	AZ
	Or		
12.	A positional control system having G(s)=100/s(s+2) and velocity feedback system H(s)=0.1s+1 is supplied with unit step input. Determine the time response of the system.	C303.2	AZ
13.	A unity feedback control system has an open loop transfer function G(s)=K/s(s^2+4s+13). Sketch the root locus and determine the gain K.	C303.3	AZ
14.	Explain various steps in drawing the root locus to determine the gain "K" for the given damping ratio δ.	C303.3	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15.	The characteristics polynomial of a system is given by $s^7+9s^6+24s^5+24s^4+24s^3+24s^2+23s+15=0$. Determine the location of roots in s-plane and also comment on the system stability.	C303.3	AZ
	Or		
16.	The open loop transfer function of a unity feedback system is given by G(s)=K(s+1)/s^3+as^2+2s+. Determine the value of **K** and **a** so that the system oscillates at a frequency of 2rad/sec.	C303.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty: Mr.R.Sridhar/AP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date	07-10-2023	Marks	50
Course code	EE3591	Course Title	Power Electronics			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define commutation.	C302.2	R
2	Define voltage ripple factor.	C302.2	R
3	Differentiate VSI and CSI.	C302.2	R
4	Define total harmonic distortion.	C302.2	R
5	Write any three application of 6 pulse converters.	C302.4	U
6	What is overlap angle in controlled rectifiers.	C302.4	R
7	Define on-off control in AC voltage controllers	C302.5	R
8	What are the types of AC voltage controllers.	C302.5	R
9	What are the applications of AC voltage controllers.	C302.5	R
10	What are the two methods of control in ac voltage controllers.	C302.5	R

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of single phase AC voltage controller with R load . Also draw necessary waveforms.	C302.5	U
	or		
12	Explain the operation of three phase AC voltage controller with R load . Also draw necessary waveforms.	C302.5	U
13	Explain 120 degree conduction of three phase inverter with necessary waveforms.	C302.2	R
	or		
14	Explain the operation of single phase half bridge and full bridge inverters . Also draw necessary waveforms.	C302.2	R
15	Explain in detail about 3 - pulse converter with R L load.	C302.4	R
	or		
16	Explain in detail about 6- pulse converter with RL load.	C302.4	R

]Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty in charge : Dr M.Marimuthu AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	03.10.2023/FN	Marks	50
Course code	EE8010	Course Title	POWER SYSTEM TRANSIENTS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester/ Section	VII	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Mention the factors on which the inrush current in capacitance switching depends on.	C405PE45.2	U
2.	What is normal and abnormal transients?	C405PE45.2	R
3.	What is tower footing resistance?	C405PE45.3	U
4.	Define Isokeraunic level.	C405PE45.3	U
5.	What is ground wire ?	C405PE45.3	R
6.	Mention the properties of good transmission line.	C405PE45.3	R
7.	What is lightning?	C405PE45.3	R
8.	Mention the harmful effects of lightning.	C405PE45.3	U
9.	What are the factors affecting the mechanical design of overhead transmission lines.	C405PE45.3	R
10.	Define protective angle in transmission line.	C405PE45.3	R

Part – B
(Answer all the questions 2 x 10 = 20marks

Q.No.	Questions	CO	Skills
11.	Explain about the capacitance switching with single and multiple restrikes with neat sketch.	C405PE45.2	R
	OR		
12.	Explain about ferro resonance in transformer.	C405PE45.2	U & R
13.	Explain about various theories in formation of clouds.	C405PE45.3	R
	OR		
14.	Explain about the mechanism of lightning discharge.	C45PE45.3	U & R

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15.	i) Explain about the mathematical model of lightning. ii) Explain about the interaction of lightning with power system..	C405PE45.3	AZ
	OR		
16.	Explain about the various protecting mechanisms provided against lightning strokes in power system.	C405PE45.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Prepared by: Mr.R.Sridhar (AP / EEE)

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			**Date/ Session**	10/10/2023 / FN	**Marks**	50
Course code	EE8017	**Course Title**	HIGH VOLTAGE DIRECT CURRENT TRANSMISSION			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024	
Year	IV	**Semester/ Section**	VII	**Department**	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the advantages of IGBT based voltage source converter?	C409PE63.2	U
2	Write the order of the harmonics generated by a converter with pulse number 'p'.	C409PE63.2	R
3	What are the advantages of high pulse number?	C409PE63.2	U
4	Write the drawbacks of constant current control	C409PE63.3	U
5	What is the need of the transformer tap changing control in HVDC?	C409PE63.3	U
6	Mention various methods of controlling output voltage of a converter.	C409PE63.3	R
7	List the main features of HVDC system control.	C409PE63.3	R
8	What is the need for sub synchronous damping controller in HVDC system?	C409PE63.3	U
9	Why feedback control of power in DC link is not desirable?	C409PE63.3	U
10	State the objective of Voltage Dependent Current Order Limiter (VDCOL) in HVDC system.	C409PE63.3	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Explain how would you proceed to construct the universal diagram of an HVDC converter? Illustrate how complete characteristics of converters as rectifier/inverter can be obtained from it?	C409PE63.3	A
	or		
12	Provide the detailed analysis of VSC topologies and their firing schemes.	C409PE63.3	A
13	Explain the energization and de-energization operations of DC link.	C409PE63.3	A
	or		
14	Discuss (i) Current and extinction angle control (ii) High level controllers (5+5)	C409PE63.3	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	Develop the expression for the average direct voltage of a six pulse converter in two and three valve conduction mode.	C409PE63.2	AZ
	or		
16	A three phase, 12-pulse converter is fed from a transformer with nominal voltage ratings of 220 kV/110 V. (a) If the primary voltage is 230kV and the effective turns ratio T is 0.48, determine the DC output voltage when the delay angle is 20° and the commutation angel is 18°. (b) If the direct current delivered by the rectifier is 2000A, calculate the effective commutating reactance and power factor.	C409PE63.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - II			Date/ Session		Marks	50
Course Code	EE8701	Course Title	High Voltage Engineering			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	IV	Semester/ Section	VII	Department		EEE

Part – A

(Answer all the questions 10 × 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Draw a circuit diagram of a simple voltage doubler.	C401.3	R
2	What are the advantages and disadvantages of using cascaded transformer?	C401.3	AZ
3	What are impulse wave specifications?	C401.3	R
4	What is tesla coil?	C401.3	A
5	Write the expression to find the optimum number of stages and %ripple in a voltage multiplier circuit.	C401.3	AZ
6	What are the high voltage d.c measurement techniques used?	C401.4	R
7	Draw the simple circuit of peak reading voltmeter and it's equivalent.	C401.4	R
8	List the advantages of CVT measurement in HVAC.	C401.4	AZ
9	Write the methods available for measuring ac voltages of power frequency.	C401.4	R
10	Mention the sources that contribute to the error in peak voltmeters.	C401.4	AZ

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Explain with neat diagram the generation of high DC voltage using Van de Graff generator. State the factors which limit the ultimate voltage developed.	C401.3	A, AZ
	OR		
12.	Explain the Marx circuit arrangement for multistage impulse generators. How is the basic arrangement modified to accommodate the wave time control resistances ?	C401.3	A, AZ
13.	With a neat diagram explain the sphere gap arrangement method of high voltage measurement in detail and give the factors influencing the measurement.	C401.4	A, AZ
	OR		
14.	Explain the operation of Electrostatic voltmeter with neat sketch and give its advantages and limitations.	C401.4	A, AZ
	Part – C (Answer all the questions)		
15.	Explain the various theories of breakdown mechanism of commercial liquid dielectrics.	C401.2	AZ
	OR		
16.	Explain the breakdown mechanisms involving in solid dielectrics.	C401.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	09.10.2023	Marks	50
Course code	EE8702	Course Title	POWER SYSTEM OPERATION AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	IV	Semester/ Section	VII / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Write the tie line power deviation equation in terms of frequency.	C412.2	A
2.	What are the assumptions made in dynamic response of uncontrolled case?	C412.2	R
3.	Define Booster Transformer	C412.3	R
4.	List the various components in AVR loop.	C412.3	AZ
5.	Distinguish between on-load and off-load tap changing transformer	C412.3	AZ
6.	What is booster transformer? Where it is used?	C412.3	R
7.	Compare series and shunt capacitors.	C412.3	R
8.	Where are the synchronous condenser installed?	C412.3	A
9.	Name some thermal constraints for unit commitment problems	C412.4	U
10.	Write the equality and inequality constraints considered in the economic dispatch problem	C412.4	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	A two-area power system connected by a tie-line has the following parameters: Parameters/Area — Area 1 — Area 2 Turbine output Power (MW) — 4000 — 2000 Nominal Frequency (Hz) — 50 — 50 Speed regulation — 4% — 5% Power system Gain (kp) — 50 — 125 Governor Time Constant — 0.2 — 0.1 Turbine Time Constant — 0.3 — 0.25 A load change of 80 MW occurs in area 1. Determine the steady state frequency and the change in the tie-line flow.	C412.2	U, A
	OR		
12.	Draw the block diagram of uncontrolled two area load frequency control system and explain the salient features under static conditions.	C412.2	U, A
13.	Explain the following methods of voltage control. (i) Tap changing transformers and (ii) Shunt and Series capacitors	C412.3	R, AZ
	OR		
14.	Draw the diagram of a typical automatic voltage regulator and develop its block diagram represenatation.	C412.3	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Describe the relation between the voltage and the reactive power at a node	C412.3	R, A
	OR		
16	a) Explain why reactive power management and control is critical for overall system stability. (5 marks) b) Write about the various Reactive power sources and sinks (5 marks)	C412.3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - II			Date/ Session	05.10.2023/FN	Marks	50
Course code	EE8703	Course Title	Renewable Energy Systems			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester	VII	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define solar constant.	C403.3	U
2	What are the performance indices of a solar collector?	C403.3	U
3	What is meant by solar photo voltaic effect?	C403.3	R
4	Name the types of concentrating collectors	C403.3	U
5	List the working fluids used in solar pumps.	C403.3	U
6	What is Greenhouse effect?	C403.3	U
7	Classify the biomass resources.	C403.4	U
8	List the factors affecting bio digestion or generation of gas.	C403.4	U
9	What is meant by cogeneration	C403.4	U
10	What is transesterification?	C403.4	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Draw schematic diagram of solar thermal power plant used for power production and explain the operation of this system in detail	C403.3	A
	Or		
12	Write briefly about characteristics and principles of any three different types of solar collectors. Draw diagrams illustrating the constructional features of these collectors.	C403.3	A
13	Describe in detail the construction and working of various types of bio-gas plants. State the merits and demerits of the biogas power plant	C403.4	A
	Or		
14	i)Explain in detail any one type of geothermal power plant. Compare its efficiency with tidal power plant. ii)Write short notes on a) Continuous type plant b) Flexible dome type plant	C403.4	A

Part – C
(Answer all the questions 1 x 10 = 10 marks)

15	Discuss about the construction of solar cell and also explain solar IV characteristics with suitable diagrams	C403.4	AZ
	Or		
16	Explain the different types of MPPT techniques with neat flow charts.	C403.4	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty: Dr. C. Krishnakumar, Prof & Head / EEE

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test – II			Date/Session	07.10.2023	Marks	50
Course code	EI8075	Course Title	Fiber Optics and Laser Instruments			
Batch No.		Duration	1 ½ hours	Academic Year	2023 - 2024/ODD	
Year	IV	Semester	07	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Define the term Population inversion.	C404-E31.3	R
2.	Generalize the properties of laser.	C404-E31.3	R
3.	What are Moire fringes?	C404-E31.2	R
4.	When the laser is said to be mode locked ?	C404-E31.3	U
5.	How optical beam polarization achieved in external modulators?	C404-E31.2	AZ
6.	Define brightness of light source.	C404-E31. 3	R
7.	Mention the applications of He-Ne laser.	C404-E31.3	R
8.	What is cavity damping?	C404-E31.3	R
9.	What is the importance of brewster windows in Gas Lasers?	C404-E31.3	R
10.	Define Pockels –effect.	C404-E31.2	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Discuss about construction and working of Nd-YAG laser.	C404-E31.3	U
	Or		
12	Explain the working of liquid and semi conductor laser.	C404-E31.3	R
13	Discuss about construction and working of CO2 laser and He-Ne laser .	C404-E31.3	U
	Or		
14	Write short notes on (i)Cavity damping (ii)Q switching .	C404-E31.3	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q.No.	Questions	CO	Skills
15	Explain how optical fibers can be used to measure temperature, pressure and liquid level in industries.	C404-E31.2	A
	Or		
16	Explain in detail Fiber scattering loss measurement and Fiber Dispersion measurement.	C404-E31.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: S.Vigneshwaran

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test – I			Date/ Session	02/11/2023 & FN	Marks	50
Course code	EC3301	Course Title	Electron Devices and Circuits			
Batch No.		Duration	90 mins	Academic Year	2023-2024/ ODD	
Year	II	Semester	III	Department	EEE	

Part – A (20 Marks)

(Answer all the Questions 5 * 2=10 Marks)

Q. No.	Questions	CO	Skills
1	Define barrier potential (or) barrier voltage.	C205.1	U
2	The reverses saturation current of si PN diode is10μA. Calculate diode current for a forward bias voltage 0.6V at 25°C.	C205.1	AZ
3	List the applications of PN diode.	C205.1	R
4	What is a voltage regulator and mention its types?	C205.1	U
5	What are the different materials used to get different colours in LED?	C205.1	U
6	What is laser diode?	C205.1	U
7	What is a clipper and clamper circuit?	C205.1	AZ
8	Write about the terminals of BJT.	C205.2	R
9	Mention the modes of operation of transistor.	C205.2	U
10	Why transistor is called as current controlled device?	C205.2	AZ

Part – B

(Answer all the questions 2 * 10 = 20marks)

Q. No.	Questions	CO	Skills
11	(i) Explain the VI characteristics of PN junction diode. (6) (ii) Distinguish between Avalanche breakdown and Zener breakdown. (4)	C205.1	U
	Or		
12	(i) Derive the expression for diffusion capacitance of PN junction diode. (6) (ii) Determine the minimum and maximum load current for which the Zener diode will maintain regulation. What is the minimum load resistance that can be used when zener voltage is 10V, minimum Zener current of 5mA, maximum zener current of 25mA and zener resistance of zero ohm. (4)	C205.1	U,AZ
13	Explain the working of centre tapped Full wave rectifier and derive the expression for ripple factor, Voltage, current, efficiency.	C205.1	U
	Or		
14	An AC supply of 220V, 50Hz is applied to a half wave rectifier through a transformer of turns ratio 10:1. Assume the diode is ideal and Load resistance is 100Ω. Find (i) Maximum RMS DC Values of load voltage, (ii) Maximum RMS DC value of load current,(iii) Efficiency .	C205.1	AZ

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the Input and output characteristics of CB configuration of a transistor with a neat diagram.	C205.2	U
	Or		
16	Explain the Input and output characteristics of CE configuration of a transistor with a neat diagram..	C205.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned eagainst each question

Faculty Name : Ms.C.Pearline Kamalini AP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – I			Date/Session	31-10-2023	Marks	50
Course code	EE 3301	Course Title	ELECTROMAGNETIC THEORY			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	II	Semester/Section	III/ A	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Given $\vec{A} = 4\,\hat{x} + 6\,\hat{y} - 2\,\hat{z}$ and $\vec{B} = -2\,\hat{x} + 4\,\hat{y} + 8\,\hat{z}$. Show that the vectors are orthogonal.	C201.1	U
2	How are the unit vectors defined in a cylindrical & spherical co-ordinate system?	C201.1	R
3	Points P and Q are located at (0,2,4) and (-3,1,5). Calculate the distance vector from P to Q.	C201.1	A
4	Given $\vec{A} = 4\,\hat{x} + 6\,\hat{y} - 2\,\hat{z}$ and $\vec{B} = -2\,\hat{x} + 4\,\hat{y} + 8\,\hat{z}$. Find the angle between $\vec{A}$ and $\vec{B}$.	C201.1	A
5	Define the divergence of a vector.	C201.1	R
6	State Stoke's theorem.	C201.1	R
7	State Coulomb's law.	C201.1	R
8	Find the force in Newton on charge Q1=20 μc situated at (0,1,2) m due to charge Q2=300 –μc situated at (2,0,0).	C201.1	A
9	Define Electric field.	C201.1	A
10	Find the electric field intensity in free space if $\vec{D}$ = 30 $\hat{x}$ C/m².	C201.1	A

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Derive and express the different types of Coordinates system with its conversion matrix	C201.1	R
	Or		
12	If $\vec{A} = y\,\vec{a_x} + (x + z)\,\vec{a_y}$ and a point Q is located at (-2,6,3), express (1) the point Q in cylindrical and spherical coordinates, (2) $\vec{A}$ in cylindrical and spherical coordinates.	C201.1	AZ
13	Verify divergence theorem, where $\vec{A} = 2xy\hat{x} + y^2\hat{y} + 4yz\hat{z}$ and S is the surface of the cube bounded by x = -1, x = 1, y = -1, y = 1, z = 0, z = 1.	C201.1	AZ
	Or		
14	Determine the divergence of these vector fields. a) $\vec{A} = \mathbf{yz}\,\hat{x} + \mathbf{4xy}\,\hat{y} + \mathbf{y}\,\hat{z}$ at (1,-2,3); b) $\vec{B} = \boldsymbol{\rho z sin\phi}\,\hat{r} + \mathbf{3}\boldsymbol{\rho z^2 cos\phi}\,\hat{\boldsymbol{\varphi}}$ at (5,π/2,1) ; c) $\vec{C} = \mathbf{2r cos\theta}\boldsymbol{cos\phi}\,\hat{r} + \mathbf{r^{1/2}}\,\hat{\boldsymbol{\varphi}}$ at (1,π/6, π/3)	C201.1	AZ

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Determine the curl of the vector fields. a) $\vec{A} = \mathbf{x^2 yz}\,\vec{a_x} + \mathbf{xz}\,\vec{a_z}$; b) $\vec{B} = \mathbf{r sin\phi}\,\vec{a_r} + \mathbf{r^2 z}\,\vec{a_\phi} + \mathbf{z cos\phi}\,\vec{a_z}$; c) $\vec{C} = \frac{\mathbf{1}}{\mathbf{r}}\mathbf{cos\theta}\,\vec{a_r} + \mathbf{r sin\theta cos\phi}\,\vec{a_\theta} + \mathbf{cos\theta}\,\vec{a_\phi}$	C201.1	AZ
	Or		
16	Three point charges of 'q' are placed in air at the corners of an equilateral triangle of side 'a'. Determine the magnitude and direction of the force on one charge due to other charges.	C201.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Name of the faculty**: **Prof.B.Paranthagan

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	01.11.2023/FN	Marks	50
Course code	EE3302	Course Title	Digital Logic Circuits			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	II	Semester/ Section	III/A	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Convert $(475.25)_8$ to its decimal equivalent & $(549.B4)_{16}$ to its binary equivalent	C201.1	E
2	Convert binary code 11011001 to its Gray equivalent, and Gray code 10110100 to its binary equivalent	C201.1	R
3	State Demargan's theorem.	C201.1	R
4	Convert the following binary to gray code:1010111000_2.	C201.1	E
5	Perform (11011-100101) using 2's complement.	C201.1	E
6	Draw the NAND-NAND logic for A'B + AB'	C201.2	A
7	Write the POS representation of the following: f(x,y,z) = ∑m(0,1,3,5,7).	C201.2	U,A
8	Draw the NOR-NOR logic for (A+B') (B+C)	C201.2	U,A
9	Simplify the expression $Z= AB + A\overline{B}.(\overline{\overline{A}.\overline{C}})$.	C201.2	U,A
10	Convert the given expression in canonical SOP form Y= AC+AB+BC.	C201.2	U,A

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11 a	Perform the following addition using BCD (205+569).	C201.1	E
11 b	Encode the binary word 1011 into seven bit odd parity hamming code.	C201.1	E
	Or		
12	A 12 bit Hamming even parity code word is read from memory. What was the original 8 bit data word that was written into memory if the 12 bit word read out is as (1)101110010100 (2)111111110100	C201.1	E
13	Simplify the following function using Karnaugh map. f(A,B,C,D,E)=∑m(0,1,3,9,10,12,13,14,18,24,27,29)+∑d(2,5,6,11,31)	C201.2	U,A
	Or		
14 a	Reduce the following function using K-map. f(A,B,C,D)=ΠM(0,2,3,8,9,12,13,15)	C201.2	A
14 b	Simplify the following function using Karnaugh map. f(w,x,y,z)=∑m(0,1,3,9,10,12,13,14)+∑d(2,5,6,11)	C201.2	A

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain about DTL and TTL with circuit diagrams .	C201.1	U
	Or		
16	Explain about RTL and ECL with circuit diagrams.	C201.1	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff Incharge: Dr.M.MARIMUTHU / Asst. Prof / EEE

Saranathan College of Engineering

Tiruchirapalli-12

Internal Assessment Test - I			Date/ Session	03.11.23/FN	Marks	50
Course code	EE3303	Course Title	Electrical Machines-I			
Batch No.		Duration	90 minutes	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/ A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Differentiate useful flux from leakage flux in electrical machines.	C210.1	R
2	Distinguish between energy and co energy in electro mechanical system	C210.1	U
3	What is the function of commutator in a DC Machine?	C210.2	U
4	Distinguish between lap and wave winding in a DC machine.	C210.2	U
5	What are the conditions to be fulfilled for building an induced emf in self-excited DC shunt generator	C210.2	R
6	A 220 V Dc shunt motor has a armature resistance of 0.3Ω. If the full load armature current is 20A, Calculate the induced emf when the machine act as (i) Motor (ii) Generator	C210.2	E
7	What is the significance of back emf in DC motor?	C210.3	U
8	What is the condition for maximum power developed by a DC motor? Justify, Can we operate the DC motor to develop the maximum power?	C210.3	U
9	A starter is necessary to start a Dc motor – Why?	C210.3	U
10	What are the factors controlling the speed of DC motor?	C210.3	R

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11a	With neat diagram explain in detail about construction of DC machine (6)	C210.2	U,R
11b	Draw the electrical equivalent circuit and derive the relevant expressions for DC shunt generator and DC Series generator (4)	C210.2	AZ,E
	or		
12a	Derive an expression for the emf generated in a DC generator (5)	C210.2	U,R
12b	A 6 pole DC generator is wave connected with 44 slots, each having 8 conductors. The emf induced is 400 V at 1200 rpm. Find flux/pole in weber (5)	C210.2	AZ,E

Q. No.	Questions	CO	Skills
13.	(a) Briefly explain the principle operation of DC motor.(5) (b) A 320 V DC Shunt motor takes a total current of 80 A and runs at 100rpm. If the iron, friction and windage losses amount to 1.5kW, the shunt field resistance is 40Ω and the armature resistance is 0.2Ω. Determine the overall efficiency of the motor (5)	C210.3	U,E
	or		
14.	(a) Derive the expression for torque developed in a Dc motor (5) (b) Determine the torque developed by a 350V Dc motor having an armature resistance of 0.5Ω and running at 15 rev/sec. The armature current is 60A (5)	C210.3	U,E

PART-C
(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A long shunt compound generator running at 1000 r.p.m supplies 22kW at a terminal voltage of 220 V. The resistances of armature, shunt field and series field are 0.05 Ω, 110 Ω and 0.06 Ω respectively. The overall efficiency of the above load is 88% Find (i) Cu loss (ii) iron loss and friction losses (iii) torque exerted by prime mover.	C210.2	AZ,E
	or		
16	A 8 pole Dc shunt generator with 778 wave connected armature conductors and running at 500 rpm supplies a load of 12.5 Ω resistance at a terminal voltage of 250 V. the armature resistance is 0.24 Ωand field resistance is 250 Ω. Find the armature current, the induced emf and the flux per pole.	C210.2	AZ,E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Faculty Incharge: Mr.P.Ramesh Babu

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	02/09/2023	Marks	50
Course code	EE3012	**Course Title**	Electrical Drives			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year/	III rd	**Semester/ Section**	V / A	**Department**	EEE	

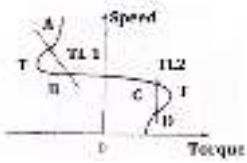
Part – A

(Answer all the questions 10 x 2 = 20marks)

Q.No	Question	CO	Skills
1	Sketch the various blocks of an electric drive. What is the function of power modulator?	C306PE3V24.1	U
2	Draw the torque speed curve of (i) fan load (ii) constant power load	C306PE3V24.1	R
3	Give the fundamental torque equation that governs the dynamics of motor driving a load and mention the different notations used along with its unit.	C306PE3V24.1	R
4	What is active and passive load torque? Give examples	C306PE3V24.1	R
5	What are the different components of electric drives?	C306PE3V24.1	A
6	State the condition for steady state stability of motor load system.	C306PE3V24.1	R
7	List the factors to be considered for selection of drive.	C306PE3V24.2	E
8	A motor of smaller rating can be selected for short time duty. Why?	C306PE3V24.2	A
9	List different classes of motor duty.	C306PE3V24.2	A
10	Name four simulation packages that can be used for electrical drives.	C306PE3V24.2	C

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain in detail the Multi quadrant operation of low speed hoist in speed torque plane.	C306PE3V24.1	R
	or		
12	Derive the Mathematical expression for steady state stability of equilibrium point.	C306PE3V24.1	A
13	A drive has following equations for motor and load torques: $T_m = (1 + 2\omega m)$ and $T_L = 3\sqrt{\omega m}$. Obtain equilibrium points and determine steady state stability.	C306PE3V24.2	A
	or		
14	The Fig 1 shows plots of speed Vs motor torque and Load torques. Comment on the stability of the operation points A, B, C and D.  **Figure 1-speed Vs motor torque and Load torque**	C306PE3V24.2	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain the steady state analysis of the single phase fully controlled converter fed separately excited DC motor drive for continuous current mode. Also, explain its operation in motoring and regenerative braking mode.	C306PE3V24.3	U
	or		
16	The motor rating is to be selected from a class of motors with heating and cooling time constants of 60 and 90 min respectively. Calculate the motor rating for the following duty cycles: (i) Short-time periodic duty cycle consisting of 100 kW load for 10 minutes followed by no load period long enough for the motor to cool down. (ii) Intermittent periodic duty cycle consisting of 100 kW load period of 10 min and no load period of 10 min.	C306PE3V24.3	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question *Faculty In charge: S.Ramprasath, AP/EEE/SCE*

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date	04-09-2023	Marks	50
Course code	EE3591	Course Title	Power Electronics			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define rectifier.	C302.3	R
2	State the applications of 3 phase full wave rectifier.	C302.3	R
3	Explain the need for capacitors in low power rectifiers.	C302.3	R
4	Define power quality .	C302.3	R
5	State the application of voltage doubler circuit.	C302.3	U
6	State the need for Free Wheeling diode in controlled rectifiers	C302.4	R
7	Define Firing angle.	C302.4	R
8	Define Power factor.	C302.4	R
9	Define harmonics in power converters	C302.4	R
10	State the application of 2 pulse converter.	C302.4	R

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Explain the operation of single phase full wave bridge type rectifier with R load . Also draw necessary waveforms.	C302.3	U
	or		
12	Explain the operation of three phase half wave rectifier with R load . Also draw necessary waveforms.	C302.3	U
13	Explain voltage doubler circuit with neat digram.	C302.3	R
	or		
14	Explain the operation of single phase half wave rectifier with RL load . Also draw necessary waveforms.	C302.3	R
15	Explain 1 pulse converter with R load.	C302.4	R
	or		
16	Explain 2 pulse converter with RL load.	C302.4	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty in charge : Dr M.Marimuthu AP/EEE

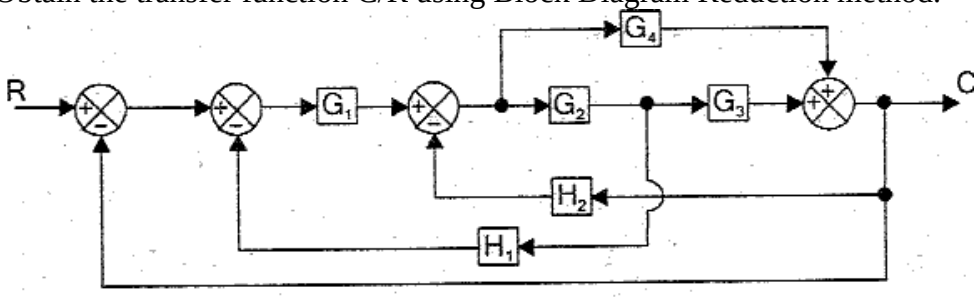
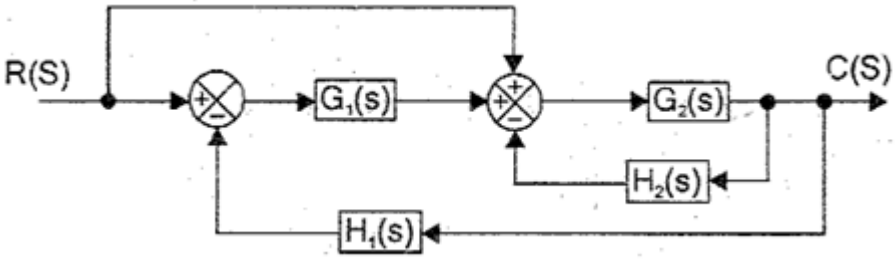
Saranathan College of Engineering
Tiruchirapalli

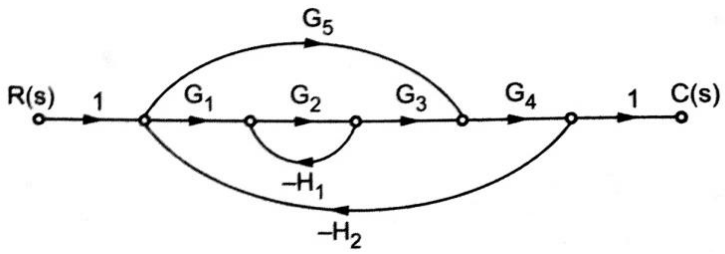
Internal Assessment Test - I			Date/ Session	05.09.2023/FN	Marks	50
Course code	EE8503	Course Title	Control Systems			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	III	Semester/ Section	V	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	What is a Control System?	C303.1	U
2.	What are the characteristics of negative feedback?	C303.1	U
3.	Distinguish between open loop and closed loop control system.	C303.1	AZ
4.	Define Transfer function.	C303.1	R
5.	What are the basic components of a block diagram?	C303.1	R
6.	Write the block diagram reduction rule of eliminating a positive feedback loop.	C303.1	R
7.	What is a source node?	C303.1	U
8.	Define non-touching loops.	C303.1	R
9.	What is transmittance in signal flow graph?	C303.1	R
10.	Mention the properties of signal flow graph.	C303.1	R

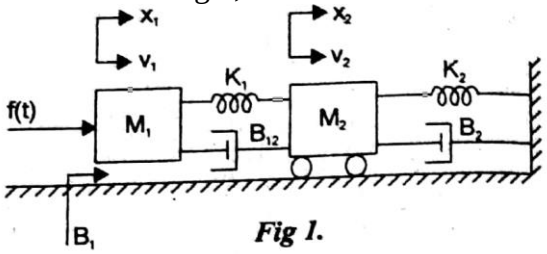
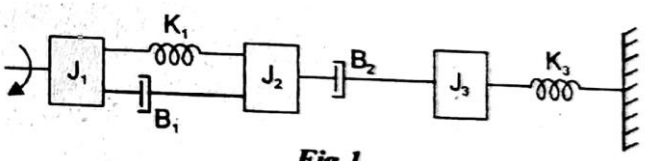
Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Obtain the transfer function C/R using Block Diagram Reduction method. 	C303.1	A
	or		
12.	Obtain the transfer function C/R using Block Diagram Reduction method. 	C303.1	A
13.	Convert the Block diagram in problem 11 into signal flow graph and obtain transfer function using Mason's Gain formula.	C303.1	A

	or		
14.	Obtain the transfer function using Mason's Gain formula.  	C303.1	A

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15.	For the system given below in Fig.1, determine the transfer function.  *Fig 1.*	C303.1	AZ
	or		
16.	For the system given below, write the differential equations governing it. Draw the force voltage and force current analogous circuit and write any one mesh and nodal equation.  *Fig 1.*	C303.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Faculty in charge: Mr.R.Sridhar/AP/EEE

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

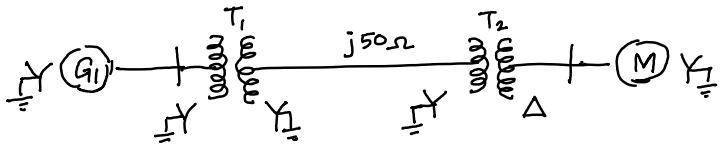
Internal Assessment Test - I			Date/ Session	09.09.2023	Marks	50
Course code	EE3501	Course Title	Power System Analysis			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	III	Semester/ Section	V	Department		EEE

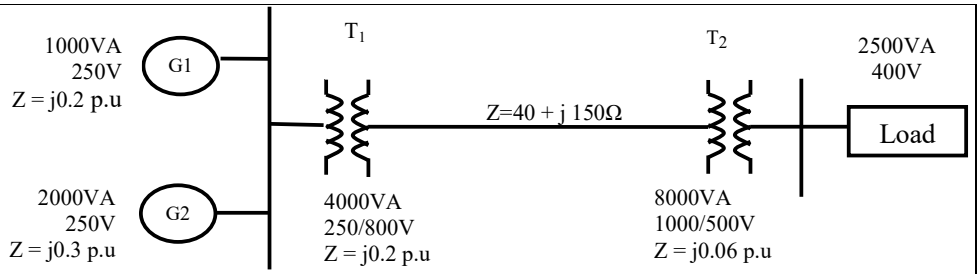
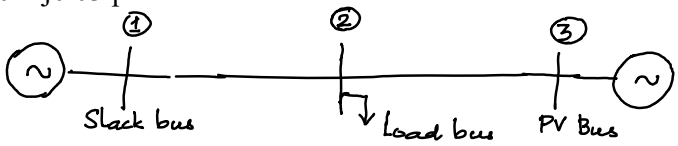
Part – A

(Answer all the questions 10 × 2 = 20marks)

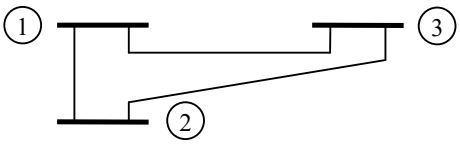
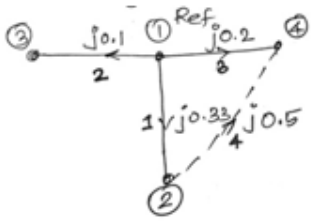
Q. No.	Questions	CO	Skills
1	List the advantages of per unit analysis.	C301.1	R
2	How are the loads represented in the reactance and impedance diagram?	C301.1	U
3	What are the components of power system?	C301.1	R
4	Define single line diagram.	C301.1	U
5	What is the need for base values?	C301.1	A
6	Write the equation for per unit impedance if change of base occurs.	C301.1	A
7	Mention the various types of buses in power system with specified quantities for each bus.	C301.2	U
8	What is the need for slack bus in power flow analysis?	C301.2	R
9	Define voltage controlled bus.	C301.2	U
10	What is the effect of acceleration factor in the load flow solution algorithm?	C301.2	AZ

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Draw the per unit reactance diagram for the power systems shown below. Neglect resistance and use a base of 100MVA, 220 kV in 50 ohms line. The ratings of the generator, motor and transformers are  Figure 1 Generator : 40MVA, 25KV, X'' = 20% Motor : 50MVA, 11KV, X'' = 30% Transformer 1: 40MVA, 33 Y/ 220Y KV, X = 15% Transformer 2: 30MVA, 11 Δ / 220Y KV, X = 15% Load: 11KV, 50MW+j68 MVAR	C301.1	E
	OR		
12	A simple power system is shown in Figure 2. Redraw this system where the per	C301.1	E

	 Figure 2		
13.	With a neat flow chart, algorithm and explain the computational procedure for load flow solution using Gauss-Siedel method.	C301.2	E
	OR		
14.	One line diagram of a power system is shown in Figure 3. Using Gauss-Seidel method, determine the complex voltage at Bus-2 at the end of first iteration. Given that $V_1=1\angle 0^o$ p.u, $P_2+jQ_2=-5.96+j1.46$ p.u, $\|V_3\|=1.02$ p.u, $Z_{12}=0.04+j0.06$ p.u and $Z_{23}=0.02+j0.03$ p.u.  Figure 3	C301.2	E

Part – C Answer all the questions

Q. No.	Questions	CO	Skills
15.	Determine the bus admittance matrix [Y_{bus}] of the representative power system shown below. Data for this system is given in Table 1.  Bus Code (i-k) / Impedance, Z_{ik} / Line Charging Admittance 1-2 / 0.02+j0.06 / j0.03 1-3 / 0.08+j0.24 / j0.025 2-3 / 0.06+j0.18 / j0.02	C301.1	E
	OR		
16.	With the help of singular transformation method, determine the bus admittance matrix [Y_{bus}] for the power system whose oriented graph is shown in the Figure 4 given below. Element number and self impedance of the elements in p.u are marked in the diagram. Neglect mutual coupling.  Figure 4	C301.1	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	29.08.2023	Marks	50
Course code	EE3016	**Course Title**	EMBEDDED SYSTEM DESIGN			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024	
Year	III	**Semester/ Section**	V	**Department**	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the typical characteristics of Embedded system?	304PE1V31.1	U
2	What is the need for Watchdog timer?	304PE1V31.1	U
3	Explain the three key functional requirements of an embedded system.	304PE1V31.1	U
4	Compare CISC and RISC processors.	304PE1V31.1	U
5	What are the types of embedded system? Name few of its characteristics.	304PE1V31.1	R
6	What are the constraints in embedded systems?	304PE1V31.1	R
7	Define the operation of timer cum counter.	304PE1V31.1	R
8	Distinguish between serial and parallel ports with example.	304PE1V31.2	U
9	Compare synchronous with asynchronous communication.	304PE1V31.2	U
10	List the ten forms of timer.	304PE1V31.2	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Explain structural units of an embedded system briefly.	304PE1V31.1	U
	or		
12	(i) Describe the concept of Direct Memory Access with its block diagram. (5) (ii)Explain the concept of In-Circuit Emulator. (5)	304PE1V31.1	U
13	Explain about (a) Watchdog Timer (b) Target hardware Debugging and (c) Real Time Clock (3+3+4)	304PE1V31.1	U
	or		
14	(a) Explain about the functions assigned to various memories in a system. (5) (b) Explain the build process of an embedded system briefly. (5)	304PE1V31.1	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	Explain RS 232 and RS 485 in detail with technical specifications.	304PE1V31.2	AZ
	or		
16	Explain the various serial and parallel communication ports and their characteristics with neat diagram.	304PE1V31.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	31-08-2023	Marks	50
Course code	EE3025	Course Title	Electric Vehicle Architecture			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	III	Semester/ Section	V / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	List the components of electric vehicle	C305PE2V41.1	A
2.	What is meant by Hybrid Electric Vehicle?	C305PE2V41.1	R
3.	What is meant by a series hybrid electric vehicle?	C305PE2V41.1	R
4.	Highlight the history of hybrid electric vehicle	C305PE2V41.1	A
5.	What are the four types of HEV available	C305PE2V41.1	A
6.	Are HEV more expensive than gasoline powered vehicles?	C305PE2V41.1	R
7.	Differentiate understeer and oversteer in a vehicle	C305PE2V41.3	R
8.	Explain the need of a transmission in a vehicle	C305PE2V41.3	A
9.	What is the purpose of an anti-lock braking systems (ABS) in an electric vehicle?	C305PE2V41.3	U
10.	Mention the use of differential in a vehicle	C305PE2V41.3	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Draw and explain architecture and power flow control of series and parallel hybrid electric drive train	C305PE2V41.1	U, A
	OR		
12.	Explain the fuel cell and flywheel as energy source elements in electric and Hybrid electric vehicles	C305PE2V41.1	U, A
13.	What is a electric car and describe the specifications of an electric car?	C305PE2V41.1	U
	OR		
14.	Explain about the micro, mild and full hybrid EVs.	C305PE2V41.1	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Explain about the planetary gear set in detail	C305PE2V41.3	R
	OR		
16	Explain about the transmission of a vehicle with detail diagram.	C305PE2V41.3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Staff In charge: Dr.M.V.Suganyadevi, ASP/EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	02.09.2023/FN	Marks	50
Course code	EE8703	Course Title	Renewable Energy Systems			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester	VII	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	List out the major factors influencing the amount of Green House Gas emissions.	C403.1	U
2	What is meant by Primary and Secondary Energy source? Give example	C403.1	U
3	Name the three categories of biomass resources	C403.1	R
4	Compose various ocean tidal energy conversion schemes.	C403.1	U
5	What are the environmental concerns of geo thermal energy?	C403.1	U
6	Define Power Co-efficient of WECS.	C403.2	U
7	Why utilization of wind is considered as part of solar technology?	C403.2	U
8	Draw the block diagram of wind power plant.	C403.2	U
9	Draw the power Vs wind speed characteristics.	C403.2	U
10	Define Stalling of Wind Power Plant.	C403.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	(a) Analyze the availability and efficiency of conversion of non-conventional energy sources in India. State the important features of availability and efficiency as found from this analysis. (6) (b) List the Advantage and Disadvantages of conventional energy systems. (4)	C403.1	A
	Or		
12	(a) Compare the energy consumption pattern in various sections in India. Discuss the growth rate of energy requirements and power generation in India. (6) (b) Explain about the Environmental consequences of fossil fuels. (4)	C403.1	A
13	Explain briefly about any two types of wind mills with neat Sketch.	C403.2	A
	Or		
14	Describe in detail the site selection procedure of a wind power plants.	C403.2	A
	Part – c **(Answer all the questions 1 x 10 = 10 marks)**		
15	(a) Determine the overall power coefficient for a wind turbine with a rated power of 3 MW, speed 18 m/s and blade diameter 40 metre. (5) (b) Determine the efficiency of a turbine with 6 m blades if it produces 65 kW in a 15 m/s wind. Assume an air density of 1.2 kg/m^3 (5)	C403.2	AZ
	Or		
16	(a) Determine the TSR of a 6 m long blade that turns 42 rpm in a 4 m/s wind. (3) (b) Explain briefly about grid integration issues in wind power plants. (7)	C403.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the faculty: Dr. C. Krishnakumar, Prof & Head / EEE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	05.09.2023	Marks	50
Course code	EE8702	Course Title	POWER SYSTEM OPERATION AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year/	IV	Semester/ Section	VII / A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	What is the need for frequency regulation in power system?	C412.1	A
2.	What is Load duration curve?	C412.1	R
3.	What are the conditions necessary for sharing load operating in parallel between two synchronous machines?	C412.1	R
4.	Classify the System Load	C412.1	AZ
5.	What is the need for load forecasting?	C412.1	AZ
6.	What are brownouts?	C412.1	R
7.	What is Diversity factor?	C412.1	R
8.	How is the real power in a power system controlled?	C412.2	A
9.	What is the need for integral controller in ALFC?	C412.2	U
10.	What is the advantage of AVR loop over ALFC?	C412.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	A generating station has the following daily load cycle. Time(hrs) | 0-6 | 6-10 | 10-12 | 12-16 | 16-20 | 20-24 Load(MW) | 40 | 50 | 60 | 50 | 70 | 40 Draw the load curve and load duration curve and find Max demand, Diversity factor, Units generated/day, Average load, Load factor.	C412.1	U, A
	OR		
12.	Draw and explain the basic P-f and Q-V control loops.	C412.1	U, A
13.	Two generators rated 200 MW and 400 MW are operating in parallel. The droop characteristics of their governors are 4% and 5% respectively from no load to full load. Assuming that the generators are operating at 50 Hz at no load, how would a load of 500 MW be shared between them? What will be the system frequency at this load? Assume free governor operation. Determine the load sharing between the two generators	C412.1	R, AZ
	OR		
14.	Two identical 60MW synchronous machines operate in parallel the governor settings on the machines are such that they have 4% and 3% droops no load to full load % speed drops. Determine (a) the load taken by each machine for a total load of 100MW. (b) the % no load speed to be made by the speeder motor if the machines are to share the load equally.	C412.1	R

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	A power station has to meet the following load demands: Load a : 50kW between 10am to 6pm Load b : 30kW between 6pm to 10pm Load c : 20kW between 4pm to 10am. Plot the daily load curve and load duration curve and evaluate (i) diversity factor, (ii) units generated per day and (iii) load factor	C412.1	R, A
	OR		
16	What are the components of speed governor system of an alternator? Derive a transfer function and sketch block diagram.	C412.1	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned *against each question*

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	09.09.23/FN	Marks	50
Course code	EE8017	Course Title	HIGH VOLTAGE DIRECT CURRENT TRANSMISSION			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester/ Section	VII	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What is HVDC light technology?	C409PE63.1	R
2	What is meant by break even distance?	C409PE63.1	R
3	List any two merits of AC and DC Transmission Systems	C409PE63.1	U
4	List the types of power devices used for HVDC transmission.	C409PE63.1	R
5	Draw the schematic diagram of a typical HVDC system.	C409PE63.1	U
6	Justify the statement 'Negative polarity is preferred for poles of HVDC system'.	C409PE63.1	U
7	Write the equations of AC current and DC voltage harmonics.	C409PE63.2	R
8	Define commutation group.	C409PE63.2	U
9	What is meant by pulse number in a converter?	C409PE63.2	R
10	Write the transformer utilization factor.	C409PE63.2	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q.No.	Questions	CO	Skills
11	Compare the HVDC transmission with EHV-AC transmission in the following aspects, if bulk power is transmitted over a long distance (i) Economics of power transmission (ii) Technical performance (iii) Reliability	C409PE63.1	A
	or		
12	Describe the planning for HVDC transmission and types of HVDC links with neat schematic diagram.	C409PE63.1	A
13	Describe the structure of HVDC system by indicating various components of it.	C409PE63.1	A
	or		
14	Describe in detail about different types & operation of MTDC with its advantages and disadvantages	C409PE63.1	A
	Part – C **(Answer all the questions 1 x 10 = 10 marks)**		
15	Explain about the operation of Graetz's circuit without overlapping condition with a neat sketch.	C409PE63.2	AZ
	or		
16	Explain how SCRs are connected in series and parallel arrangements for a desired voltage and current. How is triggering of SCRs achieved?	C409PE63.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Faculty Name: Dr.P.Ram Prakash

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	29.08.2023/FN	Marks	50
Course code	EE8010	Course Title	POWER SYSTEM TRANSIENTS			
Batch No.		Duration	90 mins	Academic Year	2023-2024	
Year	IV	Semester/ Section	VII	Department	EEE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	Define the term 'Power System Transient'.	C405PE45.1	U
2.	What are the effects of power system transients?	C405PE45.1	R
3.	Draw the double frequency transient circuit with an example.	C405PE45.1	U
4.	Give examples for internal sources of transients.	C405PE45.1	U
5.	What are subsidence transients?	C405PE45.1	R
6.	What is meant by arcing ground?	C405PE45.1	R
7.	Mention the objectives of resistance switching.	C405PE45.2	R
8.	Define restriking voltage.	C405PE45.2	U
9.	What is meant by abnormal switching transient?	C405PE45.2	R
10.	What is current chopping?	C405PE45.2	R

Part – B
(Answer all the questions 2 x 10 = 20marks

Q.No.	Questions	CO	Skills
11.	Explain various types of power system transients.	C405PE45.1	R
	OR		
12.	Explain the causes of transients in detail.	C405PE45.1	U & R
13.	Discuss in detail about the resistance switching with its equivalent circuit. Also derive the expression for critical resistance.	C405PE45.2	R & AZ
	OR		
14.	Discuss in detail about the load switching with its equivalent circuit. Also derive the expression for transient current and the transient voltage across the switch.	C45PE45.2	U & R

Part – C
(Answer all the questions 1 x 10 = 10marks)

Q.No.	Questions	CO	Skills
15.	Derive the expression for RLC circuit transient.	C405PE45.1	AZ
	OR		
16.	Derive the expression for RL circuit transient with sine wave excitation.	C405PE45.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Prepared by: Mr.R.Srdhar (AP / EEE)

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - I			Date/ Session	31.08.2023	Marks	50
Course Code	EE8701	Course Title	High Voltage Engineering			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	IV	Semester/ Section	VII	Department		EEE

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the causes of over voltages in power system?	C401.1	R
2	List the sources of switching over voltage in power system.	C401.1	R
3	Define the term Isokeraunic level.	C401.1	R
4	Write the mathematical model for lightning.	C401.1	AZ
5	Mention the causes of power frequency overvoltages in power systems.	C401.1	R
6	What is meant by corona?	C401.1	R
7	What are the factors which affect the breakdown voltage of a gaseous dielectrics ?	C401.2	AZ
8	Define Paschen's law.	C401.2	R
9	Define uniform and non-uniform fields.	C401.2	u
10	What are electronegative gases? Give some examples.	C401.2	R

Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Explain the different theories of charge formation in thunderclouds.	C401.1	u
	OR		
12.	Explain the techniques to be used for controlling the switching over voltages in a power system	C401.1	A
13.	Derive the expression of current growth equation in a uniform field due to Townsend's first and second ionization process and thereby deduce the condition for breakdown of gaseous dielectrics.	C401.2	AZ
	OR		
14.	Explain clearly breakdown in vacuum dielectrics.	C401.2	AZ
	Part – C Answer all the questions		
15.	Explain the different methods employed for lightning protection of over head lines.	C401.1	A
	OR		
16.	Write a detailed technical note on reflection and refraction of travelling waves.	C401.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

SARANATHAN COLLEGE OF ENGINEERING

Panjappur, Tiruchirapalli – 620 012

Internal Assessment Test - I			Date/ Session	31.08.2023	Marks	50
Course Code	EE8701	Course Title	High Voltage Engineering			
Batch No.		Duration	90 Mins	Academic Year		2023-2024
Year/	IV	Semester/ Section	VII	Department		EEE

Part – A

(Answer all the questions 10 × 2 = 20marks)

Q. No.	Questions	CO	Skills
1	What are the causes of over voltages in power system?	C401.1	R
2	List the sources of switching over voltage in power system.	C401.1	R
3	Define the term Isokeraunic level.	C401.1	R
4	Write the mathematical model for lightning.	C401.1	AZ
5	Mention the causes of power frequency overvoltages in power systems.	C401.1	R
6	What is meant by corona?	C401.1	R
7	What are the factors which affect the breakdown voltage of a gaseous dielectrics ?	C401.2	AZ
8	Define Paschen's law.	C401.2	R
9	Define uniform and non-uniform fields.	C401.2	U
10	What are electronegative gases? Give some examples.	C401.2	R

Part – B (Answer all the questions 2 × 10 = 20marks)

Q. No.	Questions	CO	Skills
11.	Explain the different theories of charge formation in thunderclouds.	C401.1	U
	OR		
12.	Explain the techniques to be used for controlling the switching over voltages in a power system	C401.1	A
13.	Derive the expression of current growth equation in a uniform field due to Townsend's first and second ionization process and thereby deduce the condition for breakdown of gaseous dielectrics.	C401.2	AZ
	OR		
14.	Explain clearly breakdown in vacuum dielectrics.	C401.2	AZ
	Part – C Answer all the questions		
15.	Explain the different methods employed for lightning protection of over head lines.	C401.1	A
	OR		
16.	Write a detailed technical note on reflection and refraction of travelling waves.	C401.1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Staff In Charge: Dr.K.Rajkumar, ASP/EEE

Saranathan College of Engineering

Tiruchirappalli - 620012

Internal Assessment Test – I			Date/Session	04.09.2023	Marks	50
Course code	EI8075	Course Title	Fiber Optics and Laser Instruments			
Batch No.		Duration	1 ½ hours	Academic Year	2023 - 2024/ODD	
Year	IV	Semester	07	Department	EEE	

Part – A (20 Marks)

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1.	What is Total internal reflection?	C404PE35.1	R
2.	What is Refractive Index? Give its relationship.	C404PE35.1	R
3.	What is Acceptance angle?	C404PE35.1	R
4.	What are skew rays?	C404PE35.1	U
5.	Give the formula for numerical aperture.	C404PE35.1	AZ
6.	What is the purpose of cladding and buffer coating?	C404PE35. 1	U
7.	What is an optical sensor?	C404PE35.2	R
8.	What are the types of Fiber optic sensors?	C404PE35.2	R
9.	Mention the Application of Fiber optic Sensors	C404PE35.2	R
10.	Define Kerr-effect	C404PE35.2	A

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Elaborate the various attenuation losses possible in optical fibers	C404PE35.1	U
	Or		
12	Explain in detail about optical fiber and its modes	C404PE35.1	R
13	Explain in detail about Principle of light propagation through fibers	C404PE35.1	AZ
	Or		
14	Explain the requirement for an ideal optical Source and an ideal Detector	C404PE35.1	AZ

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q.No.	Questions	CO	Skills
15	Explain in detail about measurement of attenuation (Cut back method)	C404PE35.2	A
	Or		
16	Explain in detail about Intrinsic and Extrinsic sensors	C404PE35.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: S.Vigneshwaran

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	NIGITHA.S			Year / Semester / Section	I/II/A
Batch No.	263036	Date / Session	5/4/24	Department	EEE
Course Code	EE 3251	Course Title	Electric circuit Analysis		
Internal Assessment Test	I ☒	II ☐	III ☐	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	N. GAYATHRI 5/4				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	10			
2	✓	–	12					
3	✓	2	13	✓	10			
4	✓	2	14					
5	✓	2	15					
6	✓	2	16	✓	7			
7							Total	27
8	✓	2						
9	✓	–						
10	✓	1						
Total		13	Grand Total		40/80		Name and Signature of the Examiner with date	N. Gayathri 08/04

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	80	20					100
Marks Obtained	66	14					80

QAC Audit - Remarks

—

D Geetha 22/4/24

Dr. D Geetha

Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	A. Shahith Ahamed			Year / Semester / Section	II/III / A
Batch No.	253042	Date / Session	31/10/23 / F.N	Department	EEE
Course Code	EE3301	Course Title	Electromagnetic theory		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 13
Name and Signature of the Invigilator with date	Dr. Lakshmi. A / Lakshmi 31/10/23				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	9			
3	✓	2	13					
4	✓	2	14	✓	8			
5	✓	2	15	✓	9			
6	✓	2	16					
7	✓	2					Total	26
8	✓	2						
9	✓	2						
10	✓	2						
Total		20						

92.1. 45 Grand Total 46/50

B. Paranthagan 1/11/23 Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	100						100
Marks Obtained	92						92

QAC Audit - Remarks

Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	A. Akash Raj			Year / Semester / Section	III / V
Batch No.	248004.	Date / Session	9.9.2023	Department	EEE
Course Code	EE3501	Course Title	Power System Analysis		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 11.
Name and Signature of the Invigilator with date	9/9/23 R. Mohan Kumar				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	0	12					
3	✓	0	13	✓	03			03
4	✓	2	14					
5	✓	1	15	✓	02			02
6	✓	0	16					
7	✓	1					Total	05
8	✓	0						
9	✓	1						
10	✓	0						
Total		09						

28%

14 Grand Total

11/09

K. Rajkumar

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	64	36					100
Marks Obtained	18	10					28

QAC Audit - Remarks

21/09/23

(R. SATHEESH)

Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	N. Sharmilatha			Year / Semester / Section	III / V / A
Batch No.	243047	Date / Session	09.09.2023 FN	Department	EEE
Course Code	EE3501	Course Title	Power System Analysis.		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	P. Ramesh 9/9/23				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	1	11	✓	00			00
2	✓	2	12	✓	02			02
3	✓	2	13	✓	08			08
4	✓	2	14					
5	✓	0	15	✓	08			08
6	✓	0	16	✓				
7	✓	1					Total	18
8	✓	1						
9	✓	0						
10	✓	1						
Total		10						

28 (18) Grand Total

K. Rajkumar 11/09 Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	64	36					100
Marks Obtained	34	22					56

QAC Audit - Remarks

21/09/23 (R. SATHEESH) Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	P. Amirtha Lakshmi.			Year / Semester / Section	III / V / "A"
Batch No.	243007	Date / Session	10.10.23/FN	Department	EEE
Course Code	EE3501	Course Title	Power System Analysis.		
Internal Assessment Test	I ☐	II ☒	III ☐	Model ☐	No. of pages used : 20.
Name and Signature of the Invigilator with date	G. SATHIYA				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	08			08
3	✓	1	13	✓	06			06
4	✓	2	14					
5	✓	2	15	✓	08			08
6	✓	2	16					
7	✓	2					Total	22
8	✓	2						
9	✓	2						
10	✓	1						
Total		18						

80%

40

Grand Total

Dr. K. Rajkumar 10/10/23

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		36	64				100
Marks Obtained		30	50				80

QAC Audit - Remarks

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20/10/23

(R. SATHEESH)

Name and Signature of the QAC member

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Staff Code: gayathri-eee,Assessment Test -1 [Date of Exam -05/04/24]

Branch: EEE Semester: 2 Subject Code: EE3251 - Sec A ,ShortTitle: EE3251

1. For All tests,Please Enter Marks Secured for 100.
2. Total Marks for Absentees Should be marked only as -1. COs for Absentees should be entered as Zero.
3. Do not Prefix 0 for Single Digit Marks Eg: If the mark to be entered is 8,put the entry as 8.
4. Mark entry in this screen is Applicable only for UG-Assessment Tests.
5. **For Students who are not appearing for the VIII Semster Elective Paper this semester,Total Marks should be marked as -2**

S.no	Batchno	Register Number	Name	C1 out of [80]	C2 out of [20]	Total MarksSecured [out of 100]
1	263002	813823105001	AHSWIN. V	34	4	38
2	263003	813823105002	AISHWARYA. M	64	16	80
3	263004	813823105003	AKASH. M	70	12	82
4	263005	813823105004	ANANTHARAJ. G	60	16	76
5	263006	813823105005	AVINASH. A M	76	14	90
6	263007	813823105006	BALAJI SAMINATHAN. N	50	20	70
7	263008	813823105007	DHANALAKSHMI. M	50	14	64
8	263009	813823105008	DHARUN. PS	48	12	60
9	263010	813823105009	DHIVYAN. G	8	8	16
10	263011	813823105010	DHIYASREE. S	44	16	60
11	263013	813823105011	EVANJALIN. K	50	18	68
12	263014	813823105012	GUHANA SRI. K	40	10	50
13	263015	813823105013	HANISUGAN. S	34	4	38
14	263016	813823105015	HARI KRISHNAN. A	42	12	54
15	263017	813823105014	HARIHARAN. K	44	18	62
16	263018	813823105016	HILTON JOSEPH REBELLO. A	52	8	60
17	263019	813823105017	IMMANUELL NOBIN. C F	48	4	52

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18	263020	813823105018	INIYAN. P	76	20	96
19	263021	813823105019	JEGAN. N	72	20	92
20	263022	813823105020	JOY BRUNO. A	64	20	84
21	263023	813823105021	KAVIDHARSAN. B	60	16	76
22	263024	813823105022	KEERTHIVASAN. G	50	16	66
23	263025	813823105023	KESAVARTHINI. R	0	0	-1
24	263026	813823105024	KHRUSANTH. S	28	10	38
25	263027	813823105025	KRISHNAPPAN RM	68	18	86
26	263028	813823105026	LAKSHANA SRI. S	58	14	72
27	263029	813823105027	LEKKAN. M	50	10	60
28	263030	813823105028	MAOLISWAR. K	50	20	70
29	263031	813823105029	MOHAMED AKRAM. H	46	14	60
30	263032	813823105030	MOHANASELVAN SENTHILKUMAR	78	16	94
31	263033	813823105031	MUKUNDAN. L	42	20	62
32	263034	813823105032	NANDHA GOBALAN. B N	16	0	16
33	263035	813823105033	NANTHAGOPAL. K	58	16	74
34	263036	813823105034	NIGITHA. S	66	14	80
35	263037	813823105035	NITHIN. M	66	16	82
36	263038	813823105036	PAVADHARSHINI. N	58	10	68
37	263039	813823105037	PONVANNAN. S	78	20	98
38	263040	813823105038	PRAKASHA AYYAPPAN. E	56	14	70
39	263041	813823105039	PRERNA BALAMURUGAN HEMALATHA	50	12	62
40	263042	813823105040	RAJAGURU. K	64	16	80
41	263043	813823105041	RASWANTH. V S	56	4	60
42	263044	813823105042	REMIREYAN. B	58	18	76
43	263045	813823105043	ROSHINI BANU. N	56	16	72
44	263046	813823105044	SANJEEV KUMAR. M	58	20	78
45	263047	813823105045	SATHIYAN. S M	52	10	62
46	263048	813823105046	SELLVESH. G V	76	20	96
47	263049	813823105047	SHAMPAVEE. S	52	12	64
48	263050	813823105048	SHASHI KIRAN. M	32	0	32
49	263051	813823105049	SHIVANI. S	32	10	42
50	263052	813823105050	SHIVA PRASHANTH. R P	36	8	44

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51	263053	813823105051	SIVARANJANI. S	40	10	50
52	263054	813823105052	SREENITHI. S	64	14	78
53	263055	813823105053	SRI ABHISHEAK. A	50	8	58
54	263056	813823105054	SRI NANDHINI. L	36	10	46
55	263057	813823105055	SUBAKAR RAJA	40	10	50
56	263058	813823105056	SURIYA. SV	64	20	84
57	263059	813823105057	VARUNKUMAR. S S	68	20	88
58	263060	813823105058	YOGASIRI. A G	78	20	98
59	263061	813823105059	YOKESHWARAN. S	48	8	56

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Staff Code: gayathri-eee,Assessment Test -2 [Date of Exam -03/05/24]

Branch: EEE Semester: 2 Subject Code: EE3251 - Sec A ,ShortTitle: EE3251

1. For All tests,Please Enter Marks Secured for 100.
2. Total Marks for Absentees Should be marked only as -1. COs for Absentees should be entered as Zero.
3. Do not Prefix 0 for Single Digit Marks Eg: If the mark to be entered is 8,put the entry as 8.
4. Mark entry in this screen is Applicable only for UG-Assessment Tests.
5. **For Students who are not appearing for the VIII Semster Elective Paper this semester,Total Marks should be marked as -2**

S.no	Batchno	Register Number	Name	C2 out of [64]	C3 out of [36]	Total MarksSecured [out of 100]
1	263002	813823105001	AHSWIN. V	40	30	70
2	263003	813823105002	AISHWARYA. M	50	22	72
3	263004	813823105003	AKASH. M	36	34	70
4	263005	813823105004	ANANTHARAJ. G	40	18	58
5	263006	813823105005	AVINASH. A M	64	34	98
6	263007	813823105006	BALAJI SAMINATHAN. N	14	16	30
7	263008	813823105007	DHANALAKSHMI. M	0	0	-1
8	263009	813823105008	DHARUN. PS	28	26	54
9	263010	813823105009	DHIVYAN. G	10	0	10
10	263011	813823105010	DHIYASREE. S	0	0	-1
11	263013	813823105011	EVANJALIN. K	58	32	90
12	263014	813823105012	GUHANA SRI. K	34	24	58
13	263015	813823105013	HANISUGAN. S	40	22	62
14	263016	813823105015	HARI KRISHNAN. A	46	6	52
15	263017	813823105014	HARIHARAN. K	36	0	36

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16	263018	813823105016	HILTON JOSEPH REBELLO. A	30	20	50
17	263019	813823105017	IMMANUELL NOBIN. C F	38	20	58
18	263020	813823105018	INIYAN. P	56	32	88
19	263021	813823105019	JEGAN. N	54	30	84
20	263022	813823105020	JOY BRUNO. A	56	34	90
21	263023	813823105021	KAVIDHARSAN. B	44	30	74
22	263024	813823105022	KEERTHIVASAN. G	21	20	41
23	263025	813823105023	KESAVARTHINI. R	20	16	36
24	263026	813823105024	KHRUSANTH. S	0	0	-1
25	263027	813823105025	KRISHNAPPAN RM	44	20	64
26	263028	813823105026	LAKSHANA SRI. S	34	16	50
27	263029	813823105027	LEKKAN. M	56	26	82
28	263030	813823105028	MAOLISWAR. K	30	20	50
29	263031	813823105029	MOHAMED AKRAM. H	40	30	70
30	263032	813823105030	MOHANASELVAN SENTHILKUMAR	38	26	64
31	263033	813823105031	MUKUNDAN. L	34	32	66
32	263034	813823105032	NANDHA GOBALAN. B N	35	15	50
33	263035	813823105033	NANTHAGOPAL. K	52	26	78
34	263036	813823105034	NIGITHA. S	45	25	70
35	263037	813823105035	NITHIN. M	46	6	52
36	263038	813823105036	PAVADHARSHINI. N	38	28	66
37	263039	813823105037	PONVANNAN. S	48	22	70
38	263040	813823105038	PRAKASHA AYYAPPAN. E	46	30	76
39	263041	813823105039	PRERNA BALAMURUGAN HEMALATHA	20	16	36
40	263042	813823105040	RAJAGURU. K	22	20	42
41	263043	813823105041	RASWANTH. V S	10	0	10
42	263044	813823105042	REMIREYAN. B	34	34	68
43	263045	813823105043	ROSHINI BANU. N	36	20	56
44	263046	813823105044	SANJEEV KUMAR. M	34	26	60
45	263047	813823105045	SATHIYAN. S M	34	22	56
46	263048	813823105046	SELLVESH. G V	64	34	98

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47	263049	813823105047	SHAMPAVEE. S	28	14	42
48	263050	813823105048	SHASHI KIRAN. M	30	6	36
49	263051	813823105049	SHIVANI. S	26	20	46
50	263052	813823105050	SHIVA PRASHANTH. R P	0	0	-1
51	263053	813823105051	SIVARANJANI. S	42	34	76
52	263054	813823105052	SREENITHI. S	38	28	66
53	263055	813823105053	SRI ABHISHEAK. A	46	34	80
54	263056	813823105054	SRI NANDHINI. L	26	28	54
55	263057	813823105055	SUBAKAR RAJA	26	24	50
56	263058	813823105056	SURIYA. SV	48	14	62
57	263059	813823105057	VARUNKUMAR. S S	54	34	88
58	263060	813823105058	YOGASIRI. A G	56	34	90
59	263061	813823105059	YOKESHWARAN. S	38	32	70

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Staff Code: suganyadevi-eee,Assessment Test -3 [Date of Exam -24/04/24]

Branch: EEE Semester: 6 Subject Code: EE3602 - Sec A ,ShortTitle: ee3602

1. For All tests,Please Enter Marks Secured for 100.
2. Total Marks for Absentees Should be marked only as -1. COs for Absentees should be entered as Zero.
3. Do not Prefix 0 for Single Digit Marks Eg: If the mark to be entered is 8,put the entry as 8.
4. Mark entry in this screen is Applicable only for UG-Assessment Tests.
5. **For Students who are not appearing for the VIII Semster Elective Paper this semester,Total Marks should be marked as -2**

S.no	Batchno	Register Number	Name	C4 out of [60]	C5 out of [28]	C6 out of [12]	Total MarksSecured [out of 100]
1	243001	813821105001	ABINESH. P	14	3	8	25
2	243002	813821105002	ADNAN SHEIK IBRAHIM	12	1	1	14
3	243003	813821105003	AJAY. A	51	0	5	56
4	243004	813821105004	AKASH RAJ. A	10	18	9	37
5	243005	813821105005	ALAGU SRINIVASAR. S	10	0	5	15
6	243006	813821105006	AMIRTESH. R	6	8	7	21
7	243007	813821105007	AMIRTHA LAKSHMI. P	53	26	12	91
8	243008	813821105008	ANBARASAN. E	16	0	10	26
9	243009	813821105009	ARIHARAN. S	0	13	3	16
10	243010	813821105010	ATHIDHYAN. N	47	3	10	60
11	243012	813821105012	BARATH YOGESH. R K	55	22	7	84
12	243014	813821105014	DARTHI MARY. S	23	23	11	57
13	243015	813821105015	DEVA ALFRED. S	0	0	0	0
14	243016	813821105016	DHASVANTH. S	27	15	2	44
15	243017	813821105017	DIVYA. R	0	0	0	-1
16	243018	813821105018	ELAVARASAN. S	12	0	0	12
17	243019	813821105019	FAIYAZ AHAMED. M	8	0	0	8
18	243020	813821105020	GOKUL. M	26	21	11	58
19	243021	813821105024	HARI KARTHIK. K	46	20	10	76
20	243022	813821105021	HARIHARAN. B	42	22	11	75
21	243023	813821105022	HARIHARAN. M	52	24	10	86
22	243024	813821105023	HARIHARASUDHAN. R	50	6	8	64
23	243025	813821105025	HARISH. H P	52	8	10	70
24	243026	813821105026	IQJAS FATHIMA. I	53	28	12	93
25	243027	813821105027	JAISON. R	18	17	6	41
26	243028	813821105028	KEAVIN. L	9	8	7	24
27	243029	813821105029	LOKESH KANNAN. N	20	20	10	50
28	243030	813821105030	MAFAZ AHAMED. M	1	0	0	1
29	243031	813821105031	MAHESHWARAN. P L	12	2	0	14
30	243032	813821105032	MARZOOK AHAMED. M	47	27	8	82
31	243033	813821105033	MOHAMED FAIZAL. R	27	10	0	37
32	243034	813821105034	MOHAMED MAZIN. A	52	25	8	85
33	243035	813821105035	MOHAMMED ARSHAD. M	42	23	3	68
34	243036	813821105036	MOHAMMED YUSUF. A	3	1	0	4
35	243037	813821105037	NISHA CATHERINE. V	0	16	0	16
36	243038	813821105038	NITHISH KUMAR. J	18	8	0	26
37	243039	813821105039	NITHISHKUMAR. P	34	3	7	44
38	243040	813821105040	PADMASHARAN. G S	3	7	0	10
39	243041	813821105041	POOJA. Y	52	23	10	85
40	243042	813821105043	PRAVEEN KUMAR. V	1	3	2	6
41	243043	813821105042	PRAVEEN. S	44	16	10	70
42	243044	813821105044	ROJAR GIMSON. A	50	22	8	80
43	243046	813821105045	SHANTHINI. S	52	26	10	88
44	243047	813821105046	SHARULATHA. N	41	15	10	66
45	243048	813821105047	SHEAK ABDULLAH. K	10	8	8	26

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46	243049	813821105048	SIVANESAN. B	7	4	[illegible]	15
47	243051	813821105049	SRIMATHI. R	38	7	5	50
48	243052	813821105050	SUBALAKSHMI. G	9	18	6	33
49	243053	813821105051	SUDHAN SANKAR. S	29	11	2	42
50	243054	813821105052	SUDHES MARAN. S	19	6	3	28
51	243055	813821105053	SURENDHIRAN. R	13	19	9	41
52	243056	813821105054	TAMILARASAN. P	53	15	0	68
53	243057	813821105055	VINODHINI. R	58	28	11	97
54	243058	813821105056	YAZAR MOHIDEEN. S	54	24	8	86
55	243059	813821105057	YUVHARAAJ. S	29	8	0	37
56	243060	813821105058	ZUBAIR AHAMED. A	24	13	2	39
57	243061	813821105302	KIRSHAN MELWIN. J	31	10	0	41
58	243062	813821105301	JOSHUVA VASANTHAN. K	52	20	10	82

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Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21 March 2024

Circular

First Internal Assessment Test for First Year (2nd Sem.) & Second Year (4thSem.)B.E./B.Tech., Classes will commence from 1st April 2024(MONDAY) as per the time table attached.

Test Duration

~~9.15 am to 10.45 am (1 ½ Hours)~~

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rdHour

11.50 a.m. – 12.45p.m. – 4thHour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

First IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
1st April 2024	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology	GE3252 - Tamils & Technology
2nd April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
3rd April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
4thApril 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
5th April 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
6th April 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
8th April 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

First IA Test for Second Year (4th Sem.) _ April 2024

Year: Second Sem. 4th

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
1st April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	CE3401 - Applied Hydraulics Engineering	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
2nd April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3451 - Introduction to Operating System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3404 - Soil Mechanics	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
3rd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3492 - Data Base Management System	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4thApril 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3452 - Theory of Computation	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3402 - Strength of Materials	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	CS3491 - Artificial Intelligence and Mechine Learning	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3403 - Concrete Technology	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
8th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	IT3401 - Web Essentials	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	GE3451 - Environmental Sciences and Sustainability	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th April 2024

Circular

Second Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 29th April 2024 (MONDAY) as per the time table attached.

-Test Duration-

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members.

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

II [redacted] IA Test for First Year (2nd Sem.) _ April 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
29th April 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
30th April 2024	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods	MA3251-Statistics and Numerical Methods
2nd May 2024	PH3202-Physics for Electrical Engineering	PH3255 Physics for Instrumentation Engineering	PH3256 Physics for Information Science	PH3256 Physics for Information Science	PH3254-Physics for Electronics Engineering	PH3251 Material Science	PH3251 Physics for Civil Engineering
3rd May 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
4th May 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation Engineering
6 th May 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

II IA Test for Second Year (4th Sem.) _ April 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
29th April 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
30th April 2024	CS3452 - Theory of Computation	EC3401 - Network and Security	EE3401 - Transmission and Distribution	CS3492 - Data Base Management System	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	CS3452 - Theory of Computation
2nd April 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3452 - Electromagnetic Fields	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	AL3452 - Operating Systems
4th April 2024	CS3492 - Database Management System	EC3451 - Linear Integrated Circuits	EE3403 - Measurements and Instrumentation	CS3491 - Artificial Intelligence and Mechine Learning	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	AL3451 - Machine Learning	CS3492 - Database Management System	AD3391 - Database Design and Management
6th April 2024	CS3401 - Algorithms	EC3491 - Communication Systems	EE3404 - Microprocessor and Microcontroller	IT3401 - Web Essentials	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
7th April 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3451 - Introduction to Operating System	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.29th May 2024

Circular

Third Internal Assessment Test for First Year (2nd Sem.) & Second Year (4th Sem.)

B.E./B.Tech., Classes will commence from 3rd June 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

After IA Test coaching class will be conducted for next day IA test subject.

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Exam Cell

Third IA Test for Second Year (4th Sem.) _ June 2024

Year: Second **Sem. 4th**

DATES	Second_CSE - A &B	Second_ECE - A & B	Second_EEE - A & B	Second_IT	Second_ICE	Second_MECH	Second_CIVIL	Second_AIDS	Second_CSBS	Second_AIML - A &B
3rd June 2024	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability	GE3451 - Environmental Sciences and Sustainability
4th June 2024	CS3452 - Theory of Computation	EC3451 - Linear Integrated Circuits	EE3401 - Transmission and Distribution	IT3401 - Web Essentials	IC3402 - Embedded Systems and IOT	ME3451 - Thermal Engineering	CE3401 - Applied Hydraulics Engineering	AD3491 - Fundamentals of Data Science and Analysis	AL3452 - Operating Systems	CS3452 - Theory of Computation
5th June 2024	CS3491 - Artificial Intelligence and Mechine Learning	EC3401 - Network and Security	EE3402 - Linear Integrated Circuits	CS3452 - Theory of Computation	EI3451 - Industrial Instrumentation	ME3491 - Theory of Machines	CE3405 - Highway and Railway Engineering	AL3451 - Machine Learning	CS3492 - Database Management System	AL3452 - Operating Systems
6th June 2024	CS3492 - Database Management System	EC3491 - Communication Systems	EE3403 - Measurements and Instrumentation	CS3492 - Data Base Management System	IC3452 - Electrical Machines and Drives	ME3492 - Hydralics and Pneumatics	CE3403 - Concrete Technology	MA3391 - Probability and Statistics	MA3391 - Prabability and Statistics	AD3391 - Database Design and Management
10th June 2024	CS3401 - Algorithms	EC3452 - Electromagnetic Fields	EE3404 - Microprocessor and Microcontroller	CS3451 - Introduction to Operating System	IC3451 - Automatic Control Systems	CE3491 - Strength of Materials	CE3402 - Strength of Materials	AL3452 - Operating Systems	CW3401 - Introduction to Business System	AL3451 - Machine Learning
11th June 2024	CS3451 - Introduction to Operating System	EC3492 - Digital Signal Processing	EE3405 - Electrical Machines - II	CS3491 - Artificial Intelligence and Mechine Learning	IC3401 - Modern Electronic Instrumentation	ME3493 - Manufacturing Technology	CE3404 - Soil Mechanics	CS3591- Computer Networks	AL3451 - Machine Learning	AL3391 - Artificial Intelligence

Principal

SARANATHAN COLLEGE OF ENGINEERING, Tiruchirapalli - 12

Third IA Test for First Year (2nd Sem.) _ June 2024

Year: First **Sem. 2nd**

Date	EEE	ICE	Common to AI & DS & CSBS	Common to CSE / IT / CSE(AIML)	ECE	MECH	CIVIL
3rd June 2024	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II	HS3252-Professinonal English-II
4th June 2024	Batch - 1 ---------(MA3251) Batch - 2 ----------PH3256 / PH3254 / PH3201 / PH3255						
5th June 2024	Batch - 1 ---------- PH3256 / PH3202 / PH3251 Batch - 2 ----------(MA3251)						
6th June 2024	BE3255-Basic Civil and Mechanical Engineering	BE3255-Basic Civil and Mechanical Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3254- Electrical and Instumentation Engineering	BE3251-Basic Electrical and Electronics Engineering	BE3252-Basic Electrical and Electronics and Instumentation
7th June 2024	EE3251-Electric Circuit Analysis	EE3251-Electric Circuit Analysis	AD3251 - Data structures and Design	CS3251 - Programming in C	EC3251- Circuit Analysis		
10th June 2024	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics	GE3251-Engineering Graphics

Batch - 1 - AIDS (A Sec) , CSE (A & B Sec), AIML, EEE, Mech.,
Batch - 2 - AIDS (B Sec) , IT, CSBS, ECE (A & B Sec), Civil, ICE

Principal

(Finalone)

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Second Year FIRST IA TEST FOR I AND II Year _October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.23.11.2023

Circular

Internal Assessment **Test – 2** for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 27.11.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – FIRST HOUR

11.50 a.m. – 12.45 p.m. – SECOND HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21.12.2023

Circular

Internal Assessment Test – 3 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 26.12.2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – **FIRST HOUR**

11.50 a.m. – 12.45 p.m. – **SECOND HOUR**

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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21/12/23

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

THIRD IA TEST FOR II Year _December 2023

S.No.	1	2	3	4	5	6
Date	26-Dec-23	27-Dec-23	28-Dec-23	30-Dec-23	02-Jan-24	03-Jan-24
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	MA3355 -Random Processes and Linear Algebra	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	EI3354 - Linear Integrated Circuits and Applications	CS3353 - C Programming and Data Structures	EI3351 - Analog Electronics
Mech.,	ME3393 - Manufacturing Processes	ME3351 - Engineering Mechanics	MA3351 - Transforms and Partial Differential Equations	ME3391 - Engineering Thermodynamics	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery
CIVIL	CE3303 - Water Supply and Wastewater Engineering	CE3302 - Construction Materials and Technology	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.27.09.2023

Circular

Second Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 3rd October 2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 3rd Hour

11.50 a.m. – 12.45 p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS OCTOBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
3rd October2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th October 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
5th October2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th October 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	CCS367-Storage Technologies
9th October 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
10th October2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS335-Cloud computing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

SECOND IA TEST FOR THIRD & FINAL YEAR STUDENTS _OCTOBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
3rd October2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th October 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
5th October2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-Instrumentationin Petrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th October 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
9th October 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
10th October2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

SARANATHAN COLLEGE OF ENGINEERING, TRICHY

TIME TABLE FOR INTERNAL ASSESSMENT TEST – 3

YEAR: III & IV **SEM: ODD 2023-24**

DATE	III ICE	IV ICE
02.11.2023	EI3551 Process Control Dr.S.M.Girirajkumar	EI8751 Industrial Data Networks Dr.A.Gopikrishnan
04.11.2023	CEI355 Computer Architecture Ms.G.Nithyalakshmi	EC8093 Digital Image Processing Mr.S.Hariprasath
06.11.2023	IC3501 Advanced Control Theory Dr.A.Gopikrishnan	GE8073 Fundamentals of Nanoscience Dr.M.Shanmugavalli
07.11.2023	CIC345 Renewable Systems Mr.R.Satheesh	EI8075 Fibre Optics and Laser Instrumentation Mr.R.Satheesh
08.11.2023	CIC342 Thermal Power Plant Instrumentation Dr.M.Shanmugavalli	EI8692 Electronic Instrumentation Dr.K.Gaayathry
09.11.2023	BM3491 Biomedical Instrumentation Mr.B.Paranthagan	EI8091 Instrumentation in Petrochemical Industries Mr.R.Seetharaman

HOD-ICE

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24.8.2023

Circular

First Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 29.8.2023 as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – First Hour

11.50 a.m. – 12.45 p.m. – Second Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
29.8.2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS335-Cloud computing	CS3691-Embedded System and IOT
31.8.2023	CS3501-Compiler Design	CEC332-Advanced Digital Signal Processing	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	CCS334-BigData Analysis	CW3551-Data and Information Security
2.9.2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	AD3501-Deep Learning	CCS335-Cloud Computing
4.9.2023	CS3551-Distributed Computing	CEC331-4G/5G Communication Networks	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CW3551-Data and Information Security	CCS367-Storage Technologies
5.9.2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CS3551-Distributing Computing	CW3501-Fundamentals of Management
9.9.2023	CCS375-Web Technologies	EC3501-Wireless Communication	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS341- Data Warehousing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
29.8.2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
31.8.2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
2.9.2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-InstrumentationinPetrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
4.9.2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
5.9.2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9.9.2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24th Feb"2024

Circular

First Internal Assessment Test for Third Year (6th Sem.) B.E./B.Tech., Classes will commence from 26th February 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
FIRST IA Test_for Third Year B.E./B.Tech., _ February / March 2024

Year: Third Year

Date /Branch	26.2.2024	27.2.2024	28.2.2024	29.2.2024	2.3.2024	4.3.2024
CSE	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded Systems and IOT	CCW331 - Business Analytics	CCS334 - Big Data Analytics	CCS336 - Cloud Services Management	CCS341 - Data Warehousing
ECE	CEC349 - RFID System Design & Testing	OEE351 - Renewable Energy System	CEC354 - Software Defined Networks	CS3491 - Artificial Intelligence and Machine Learning	ET3491 - Embedded Systems and IOT Design	
EEE	EE3601 - Protection and Switchgear	EE3602 - Power System Operation and Control	OCS352 - IOT Concepts and Applications	EE3011 - Multilevel Power Converters	EE3020 - Smart System Automation	
IT	CCS356 - Object Oriented Software Engineering	CCS366 - Software Testing and Automation	CCS354 - Network Security	CCS335 - Cloud Computing	CCS334 - Big Data Analytics	
ICE	EI3651 - Industrial Automation Systems	CIC341 - Electric Vehicle Technology	CIC343 - Instrumentation in Petrochemical Industry	CIC340 - Analytical Instrumentation	CIC339 - Fibre Optics Instrumentation	EI3652 - Introduction to Industrial Processes, Measurement and Control
Mech.,	CME386 - Gas Dynamics and Jet Propulsion	CME384 - Power Plant Engineering	CME380 - Automobile Engineering	ME3691 - Heat and Mass Transfer	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	
Civil	CE3602 - Structural Analysis II	AG3601 - Engineering Geology	CE3013 - Advanced Construction Techniques	CE3601 - Design of Steel Structural Elements	CE3009 - Construction Equipment and Machinery	CCE332 - Environmental Health and Safety
CSBS	CCW331 - Business Analytics	CCS356 - Object Oriented Software Engineering	CCW332 - Digital Marketing	CCS360 - Recommender Systems	CCS346 - Exploratory Data Analysis	CW3007 - IT Project Management
AIDS	CCS365 - Software Defined Networks	CS3691 - Embedded System & IOT	CCS372 - Virtualization	CCW332 - Digital Marketing	CCS336 - Cloud Service Management	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

21 March 2024

Circular

Second Internal Assessment Testfor Third Year (6th Sem.)& Final Year (8th Sem.) for B.E./B.Tech., Classes will commence from 25thMarch 2024(MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. –3rd Hour

11.50 a.m. – 12.45p.m. – 4th Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Third Year (6th Sem.) _ April 2024

Year: Third **Sem. 6th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
25th March 2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing	EE3601 - Protection and Switchgear	CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer	CE3602 - Structural Analysis II	CCW331 - Business Analytics	CCS365 - Software Defined Networks
26th March 2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3602 - Power System Operation and Control	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
27th March 2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	OCS352 - IOT Concepts and Applications	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construccion Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
28th March 2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	EE3011 - Multilevel Power Converters	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
1st April 2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3020 - Smart System Automation	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
2nd April 2024	CCS341 - Data Warehousing				CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	

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Saranathan College of Engineering
Tiruchirapalli - 12
Second IA Test for Final Year (8th Sem.) _ April 2024

Year: Final Year **Sem. 8th**

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil
25th March 2024							
26th March 2024							
27th March 2024							GE8076 - Professional Ethics In Engineering
28th March 2024							CE8020 - Maintanance, Repair and Rehabilation of Structures
1st April 2024							
2nd April 2024							

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.17th April 2024

Circular

Third Internal Assessment Test for Third Year (6th Sem.) for B.E. / B.Tech., Classes will commence from 22nd April 2024 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

Saranathan College of Engineering
Tiruchirapalli - 12
T H I R D - I A Test for Third Year (6th Sem.) _ April _ May 2024

Year: Third Sem. 6th

Date /Branch	CSE	ECE	EEE	IT	ICE	Mech.,	Civil	CSBS	AIDS
22.4.2024	CCS356 - Object Oriented Software Engineering	CEC349 - RFID System Design & Testing		CCS356 - Object Oriented Software Engineering	EI3651 - Industrial Automation Systems	ME3691 - Heat and Mass Transfer		CCW331 - Business Analytics	CCS365 - Software Defined Networks
23.4.2024	CS3691 - Embedded Systems and IOT	OEE351 - Renewable Energy System	EE3601 - Protection and Switchgear	CCS335 - Cloud Computing	CIC341 - Electric Vehicle Technology	CME386 - Gas Dynamics and Jet Propulsion	AG3601 - Engineering Geology	CCS356 - Object Oriented Software Engineering	CS3691 - Embedded System & IOT
24.4.2024	CCW331 - Business Analytics	CEC354 - Software Defined Networks	EE3602 - Power System Operation and Control	CCS354 - Network Security	CIC343 - Instrumentation in Petrochemical Industry	CME384 - Power Plant Engineering	CE3013 - Advanced Construction Techniques	CCS360 - Recommender Systems	CCS336 - Cloud Service Management
25.4.2024	CCS334 - Big Data Analytics	CS3491 - Artificial Intelligence and Machine Learning	OCS352 - IOT Concepts and Applications	CCS366 - Software Testing and Automation	CIC340 - Analytical Instrumentation	CME380 - Automobile Engineering	CE3601 - Design of Steel Structural Elements	CCW332 - Digital Marketing	CCS372 - Virtualization
29.4.2024	CCS336 - Cloud Services Management	ET3491 - Embedded Systems and IOT Design	EE3011 - Multilevel Power Converters	CCS334 - Big Data Analytics	EI3652 - Introduction to Industrial Processes, Measurement and Control	CME396 - Process Planning and Cost Estimation & CME389 - Design of Transmission System	CE3009 - Construction Equipment and Machinery	CCS346 - Exploratory Data Analysis	CCW332 - Digital Marketing
30.4.2024	CCS341 - Data Warehousing		EE3020 - Smart System Automation		CIC339 - Fibre Optics Instrumentation		CCE332 - Environmental Health and Safety	CW3007 - IT Project Management	
2.5.2024							CE3602 - Structural Analysis II		

Principal

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date / Session	04/11/2023 / FN	Marks	50
Course code	EI3351	**Course Title**	Analog Electronics			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year	II	**Semester/ Section**	III/A	**Department**	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Explain on the working of PN Junction Diode in forward and reverse bias	C202.1	U
2.	Draw the cross-sectional diagram of PN junction diode in reverse bias condition	C202.1	R
3.	Differentiate Transition and Diffusion capacitances	C202.1	R, U
4.	Draw the circuit diagram, input and output waveform of Half Wave Rectifier	C202.1	R
5.	Highlight the differences between PN Junction and Zener Diode	C202.1	R, U
6.	Explain the working of LED	C202.1	R
7.	Why we cannot replace transistor with Back-to-Back diodes. Justify your answer	C202.2	U
8.	Draw the cross-sectional diagram of PNP transistor under unbiased condition	C202.2	R
9.	Mention the 4 regions of operations of BJT	C202.2	R
10.	When can we use a transistor as a switch?	C202.2	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the working of Bridge Type and Centre-Tapped Type Full Wave Rectifier with neat circuit diagram and waveforms	C202.1	R
	OR		
12.	Discuss in detail about the VI characteristics of PN Junction Diode with neat diagram	C202.1	R
13.	Highlight the differences between the working of PN Junction Diode and Zener Diode and explain in detail on how Zener Diode is used as Voltage Regulator with neat diagrams	C202.1	R, U
	OR		
14.	Write short notes on working of LED, Laser diode, Photo diode with neat diagrams	C202.1	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Discuss on Input and Output characteristics of CB and CC configurations of BJT with neat diagram	C202.2	R
	OR		
16.	a. Calculate the values of I_C and I_E for a BJT with $\alpha_{dc} = 0.97$ and $I_B = 50\ \mu A$ (5 marks) b. A transistor has $\alpha = 0.9$. If $I_E = 10$ mA, find the values of β, γ, I_B and I_C (5 marks)	C202.2	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman/ICE

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test - I			Date/ Session	30/10/2023	Marks	50
Course code	EI3352	Course Title	DIGITAL SYSTEM DESIGN AND APPLICATIONS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define Logic gates. List out the basic gates and Universal gates	C203.1	U
2.	Convert $(115)_{10}$ and $(235)_{10}$ into hexadecimal numbers.	C203.1	AZ
3.	Convert $(10111011)_2$ into its equivalent gray code.	C203.1	AZ
4.	Convert the given expression in canonical SOP form Y = AC + AB+ BC	C203.1	AZ
5.	State Demorgan's Theorem.	C203.1	R
6.	Construct OR and AND Gate using NAND Gate.	C203.1	A
7.	Write the POS representation of the following SOP function : $f(x,y,z) = \Sigma m(0, 1, 3, 5, 7)$	C203.1	AZ
8.	Reduce A (A + B).	C203.2	AZ
9.	Write the logic expression of Full adder and Full Subtractor.	C203.2	U
10.	Design a Half Subtractor.	C203.2	A

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	(a) Convert $FACE_{16}$ into its binary, Octal and decimal equivalent. (5) (b) Explain in detail about Error detecting and Error correcting code. (5)	C203.1	AZ
	OR		
12.	Given the following Boolean expression $F = A'C + A'B + AB'C + BC$. Express it in Sum of min terms and Find the Sum of Products expression.	C203.1	AZ
13.	Reduce the following minterms using K-Map: $f(w, x, y, z)=\Sigma m(0, 1, 3, 5, 6, 7, 8, 12, 14) + d(9, 15)$	C203.1	AZ
	OR		
14.	Examine how to minimize the function and implement it using only NOR Gates $F(A, B, C, D)=\sum m(0,4,6,8,9,10,12) +\sum d(2,13)$	C203.1	AZ

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Design a Full Subtractor and realize using logic gates. Also, implement the same using the half subtractors.	C203.2	A
	OR		
16.	Design a Full Adder and implement using Logic gates	C203.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge : Dr.K.Gaayathry / ICE

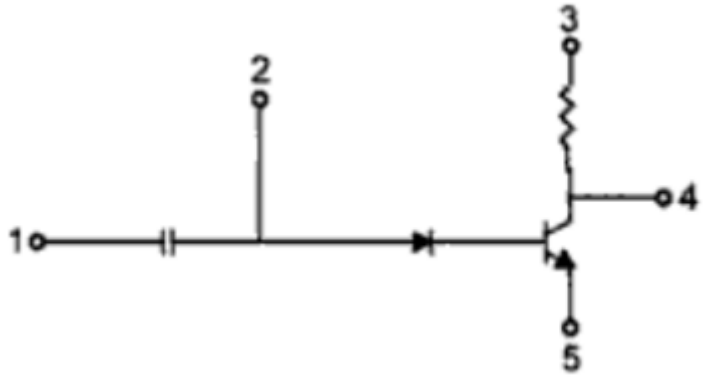
Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	02.11.2023/FN	Marks	50
Course code	EI3354	**Course Title**	Linear Integrated Circuits and Applications			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year	II	**Semester/ Section**	III	**Department**	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the advantages of IC?	C206.1	R
2.	Classify IC.	C206.1	R
3.	How will you prepare silicon wafer?	C206.1	R
4.	What are the different types of resistor fabrication?	C206.1	R
5.	Why Aluminum is used for metallization?	C206.1	R
6.	Differentiate diffusion and isolation.	C206.1	U
7.	Write down the different packages of IC.	C206.1	U
8.	Define CMRR.	C206.2	U
9.	Define slew rate.	C206.2	U
10.	What is voltage follower?	C206.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the IC planar processes	C206.1	R
	OR		
12.	How will you fabricate diode and capacitor?	C206.1	R
13.	How will you fabricate the below circuit?  	C206.1	A
	OR		
14.	Explain the fabrication of FETs.	C206.1	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Write note on ac and dc characteristics of opamp.	C206.2	U
	OR		
16.	Design an inverting, non inverting and differential amplifier for the gain of 5.	C206.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr. M. Shanmugavalli

Saranathan College of Engineering

Tiruchirapalli

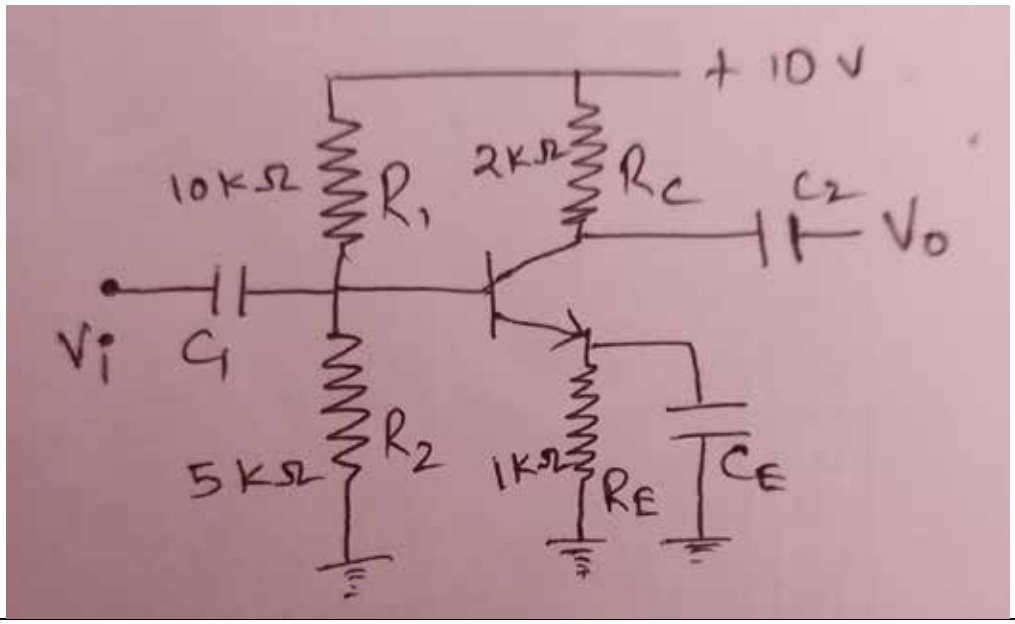
Internal Assessment Test – II			Date / Session	05.12.2023/FN	Marks	50
Course code	EI3351	Course Title	Analog Electronics			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Why is Q-Point necessary in Transistor configurations?	C202.2	U
2.	Draw the circuit diagram of CE amplifier using Voltage Divider Biasing	C202.2	R
3.	Comment on the relationship between input and output AC signal of Single Stage CE Amplifier	C202.2	U
4.	Define and write the expression of hie and hfe of a transistor	C202.2	R
5.	Draw the hybrid model of CC amplifier circuit	C202.2	R
6.	Write the expression for Current Gain (Ai) and Voltage Gain (Av) for a Common Emitter amplifier	C202.2	R
7.	Differentiate BJT & FET	C202.3	R
8.	What are the 4 types of MOSFET	C202.3	R
9.	Draw the symbol of P-Channel Enhancement and Depletion MOSFET	C202.3	R
10.	What is pinch-off voltage in a JFET	C202.3	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Derive the expressions for Current Gain (Ai), Voltage Gain (Av), Input Impedance (Zin) and Output Impedance (Zout) for a Common Emitter amplifier with a neat diagram	C202.2	R, U
	OR		
12.	The hybrid parameters for a transistor used in CE configuration are hie = 1000 Ω, hfe = 150, hre = 1.2 x 10^{-4}, hoe = 25 x 10^{-6} mho. The transistor has a load resistance of 10KΩ in the collector and is supplied from a signal source of resistance 5KΩ. Compute the values of Ai, Av, Zin & Zout	C202.2	AZ, E
13.	Perform the AC analysis of CE amplifier with Voltage divider Biasing and derive the necessary expressions with neat diagram	C202.2	R, U
	OR		
14.	Calculate V_{CE} and I_C for a Germanium Transistor for the given circuit. Assume that β = 150.	C202.2	AZ, E

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With a neat sketch, explain the operation and characteristics of N-Channel JFET	C202.3	R
	OR		
16.	With a neat diagram, explain the working and derive the expressions for Common Source (CS) FET Amplifier	C202.3	R, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman – AP/ICE

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test - II			Date/ Session	28/11/2023	Marks	50
Course code	EI3352	Course Title	DIGITAL SYSTEM DESIGN AND APPLICATIONS			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Write the basic concepts behind MUX, DEMUX, Encoder and Decoder.	C203.3	U
2.	Design a 1:8 demultiplexer using two numbers of 1:4 demultiplexers.	C203.3	A
3.	Compare Decoder and Demultiplexer.	C203.3	U
4.	Draw the Truth table of 2:1 MUX.	C203.3	A
5.	What is magnitude Comparator?	C203.3	R
6.	Give two applications (each) for Multiplexer and decoder.	C203.3	A
7.	List out the significance of priority Encoder.	C203.3	U
8.	Draw the characteristics equation and table of D Flip-flop.	C203.4	U
9.	Define State transition diagram of flip-flop.	C203.4	U
10.	Compare Combinational and Sequential circuit.	C203.4	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	(i) Design a 3:8 decoder and explain it operation as a minterm generator. (5) (ii) Construct a 5:32 Decoder with four 3:8 decoders with enable inputs and one 2:4 decoder. (5)	C203.3	A
	OR		
12.	Explain about Encoders and design a Decimal to BCD Encoder.	C203.3	U
13.	Design a 4-bit binary to BCD code converter and implement using logic gates.	C203.3	AZ
	OR		
14.	What is a Multiplexer? Implement the function using 8 : 1 mux and gates. $F(A, B, C, D) = \sum m\ (0, 2, 3, 6, 8, 9, 11. 13)$.	C203.3	AZ

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Construct and give Characteristics equation, Characteristics table of SR flip-flop by explaining the operation of SR flip-flop.	C203.4	U
	OR		
16.	Explain the operation of J-K Flip flop.	C203.4	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge : Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date / Session	03.01.2024/FN	Marks	50
Course code	EI 3351	Course Title	Analog Electronics			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Two amplifiers having gain of 5 and 10 are cascaded. Find the overall gain	C202.4	E
2.	State the difference between Common Mode Gain and Differential Gain	C202.4	U
3.	Write the expression of A_C and A_D in AC Analysis of Differential Amplifier	C202.4	R
4.	CMRR of an amplifier is 150, calculate common mode gain if the differential mode gain is 1000	C202.4	E
5.	Draw the frequency response of Single Tuned Amplifier	C202.4	R
6.	State the differences between Class A, Class B and Class C Power Amplifier	C202.4	U
7.	Define Feedback Amplifier and mention the difference between Positive and Negative Feedback	C202.5	R
8.	Draw the circuit diagram of Voltage Amplifier with Voltage Series Feedback	C202.5	R
9.	Highlight the importance of Sampling and Feedback Network	C202.5	U
10.	Comment on the values of R_i and R_O for Voltage and Current Amplifier	C202.5	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Draw the circuit diagram of a Differential Amplifier and derive expressions for Differential Mode Gain, Common Mode Gain, CMRR using AC Analysis	C202.4	U, AZ
	OR		
12.	With a neat diagram, perform DC Analysis and find out the expression for Q-Point of a Common Emitter based Differential Amplifier	C202.4	U, AZ
13.	a. With a neat sketch, explain the Construction and Working of n-stage Cascaded Amplifier (5 Marks) b. With a neat sketch, explain the Construction, Working and Frequency Response of Single Tuned Amplifier (5 Marks)	C202.4	R
	OR		
14.	Using appropriate Circuit Diagram and VI Characteristics, explain the working of Class A, Class B and Class C Power Amplifier, and comment on their efficiency	C202.4	R, U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Sketch the block diagram of a Feedback Amplifier and derive the expression for Gain with Negative Feedback	C202.5	U, AZ
	OR		
16.	Derive the expression for Input Resistance and Output Resistance of a Voltage Series Feedback Amplifier	C202.5	U, AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman / AP-ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date / Session	27.12.2023 / FN	Marks	50
Course code	EI3352	Course Title	Digital System Design and Applications			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is the number of Flipflops required for designing n-bit counter?	C203.4	U
2.	Write a short note on Shift Registers and its basic modes.	C203.4	R
3.	Give the general model of asynchronous sequential circuit.	C203.5	R
4.	Compare pulsed mode and fundamental mode in asynchronous circuit.	C203.5	U
5.	What are transition table and flow table?	C203.5	R
6.	Draw the block diagram of PLA.	C203.5	R
7.	Define Race condition. How it can be eliminated.	C203.5	R
8.	Differentiate Synchronous and Asynchronous circuits.	C203.5	U
9.	List out the operators present in VHDL.	C203.6	U
10.	What are the different types of modeling VHDL?	C203.6	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Demonstrate the analysis procedure of asynchronous sequential circuit with an example.	C203.5	U
	OR		
12.	Discuss about the hazards in asynchronous sequential circuits and the method to eliminate them.	C203.5	U
13.	Implement the following functions using PLA having 3 inputs , 4 product terms and 2 outputs F1(A,B,C)= ∑m(3,5,6,7) ; F2(A,B,C)= ∑m(0,2,4,7)	C203.5	AZ
	OR		
14.	With circuit schematic explain the operation of TTL 2 input NAND Gate and ECL AND Gate.	C203.5	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail about the RTL Design procedure.	C203.6	U
	OR		
16.	A Sequential circuit with 2 D-Flipflops A and B, input X and output Y is specified by the following next state and output equation A(t+1) = AX+BX, B(t+1) = A'X, Y = (A+B)X'	C203.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge : Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date/ Session	30.12.2023/FN	Marks	50
Course code	EI3354	Course Title	Linear Integrated Circuits and Applications			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is voltage regulator?	C206.4	R
2.	What are the types of voltage regulator?	C206.4	R
3.	What is power amplifier and list down its types.	C206.4	R
4.	Draw the pin diagram of IC8038.	C206.4	R
5.	Design a variable voltage regulator using IC.	C206.4	R
6.	List down the application of Quad op amp.	C206.5	U
7.	What do you mean by S/H circuit?	C206.5	U
8.	What are the advantages of Instrumentation amplifier.	C206.5	U
9.	Find the resolution and dynamic range of a DAC, if the maximum peak to peak output voltage is 5V and the input signal is a10 bit word.	C206.6	U
10.	Calculate the values of the LSB, MSB and full scale output for an 8 bit DAC for the 0 to 10V.	C206.6	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain about LM723 and its operation.	C206.4	R
	OR		
12.	Discuss about SMPS and its working.	C206.4	R
13.	Discuss about V/I and I/V converter.	C206.5	A
	OR		
14.	Write note on differential and Instrumentation amplifier	C206.5	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Write note on R- 2R ladder and weighted resistor types of DAC	C206.6	U
	OR		
16.	Write note on Flash and Successive approximation types of ADC	C206.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr. M. Shanmugavalli

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	30.11.2023/FN	Marks	50
Course code	EI3354	Course Title	Linear Integrated Circuits and Applications			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	III	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is Schmitt trigger?	C206.2	R
2.	What is multivibrator?	C206.2	R
3.	What are the types of filter?	C206.2	R
4.	Write down Barkhausen criterion for oscillations.	C206.2	R
5.	What is analog multiplier and divider?	C206.3	R
6.	List the applications of timer.	C206.3	U
7.	Draw the block schematic of PLL.	C206.3	U
8.	Explain lockin range and capture range.	C206.3	U
9.	What is the difference between 565 and 566?	C206.3	U
10.	Design a first order HPF for pass band gain of 2 and lower cut off frequency 2kHz.	C206.3	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Write note on integrator and differentiator.	C206.2	R
	OR		
12.	Write note on opamp circuit using diodes.	C206.2	R
13.	Write note on astable and monostable mode of operation of 555 timer.	C206.3	A
	OR		
14.	Explain the operation of VCO and PLL.	C206.3	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Design a second order Butterworth LPF and HPF having cut off frequency 2kHz.	C206.3	U
	OR		
16.	In the timer, Ra=6.8kohms, Rb=3.3kohms and C=0.1uF, calculate t(high), t(low), free running frequency and duty cycle.	C206.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr. M. Shanmugavalli

Saranathan College of Engineering Tiruchirapalli

Internal Assessment Test - I			Date/ Session	04.09.2023/FN	Marks	50
Course code	CIC342	Course Title	Thermal Power Plant Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the factors to be considered for power plant performance?	C303PE1V44.1	U
2.	Differentiate sub-critical boiler and super-critical boiler	C303PE1V44.1	R
3.	Explain the term nuclear fission.	C303PE1V44.1	A
4.	Define the principle used in solar power plant?	C303PE1V44.1	C
5.	Calculate the speed of generator having 2 poles configuration and grid frequency is 50Hz.	C303PE1V44.1	AZ
6.	Mention the importance of instrumentation system in power plant.	C303PE1V44.1	E
7.	What is meant by cogeneration?	C303PE1V44.1	A
8.	Analyze the importance of drum level measurement.	C303PE1V44.2	U
9.	List the methods and elements used for air flow measurement.	C303PE1V44.2	A
10.	What is meant by bulk compression effect?	C303PE1V44.2	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the operation of hydro-electric power plant with a neat diagram and describe about the each component.	C303PE1V44.1	U
	OR		
12.	With a neat sketch explain the boiler processes in detail.	C303PE1V44.1	C
13.	Explain the operation of solar power plant with a neat diagram and describe about the each component.	C303PE1V44.1	A
	OR		
14.	Draw the overall layout of thermal power plant and present the four major circuits of operation.	C303PE1V44.1	E

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain any two measurement method of feed water flow in thermal power plant.	C303PE1V44.2	A
	OR		
16.	Describe in detail about steam pressure measurement with a neat diagram.	C303PE1V44.2	C

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: Dr.M.Shanmugavalli – Prof., ICE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date / Session	02.09.2023 / FN	Marks	50
Course code	CIC345	Course Title	Renewable Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V/-	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the limitations of renewable energy sources?	C305PE3V47.1	U
2.	What do you understand by energy resources?	C305PE3V47.1	R
3.	List the factors influencing the amount of GHG emissions.	C305PE3V47.1	R
4.	What are the limitations of solar energy utilization techniques?	C305PE3V47.1	U
5.	List the non-conventional energy sources.	C305PE3V47.1	R
6.	What are the three pillars of sustainable design and development?	C305PE3V47.1	R
7.	Define tip speed ratio.	C305PE3V47.2	R
8.	Give the main components of wind power plant.	C305PE3V47.2	R
9.	Name any two important wind power plants in India.	C305PE3V47.2	R
10.	Mention the factors which determine the power in wind	C305PE3V47.2	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	What are the conventional and non-conventional energy sources? Describe the fossil fuels as the conventional energy sources.	C305PE3V47.1	U
	OR		
12.	Explain the role and importance of renewable energy sources in detail.	C305PE3V47.1	A
13.	Give brief review of various sources of renewable energy.	C305PE3V47.1	U
	OR		
14.	Explain the consequence of environmental impact of fossil fuel utilization.	C305PE3V47.1	A

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	How energy from wind can be extracted? Explain the process by using suitable diagram.	C305PE3V47.2	A
	OR		
16.	Draw the line diagram of various types of wind mill blades and write their advantages and disadvantages.	C305PE3V47.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date / Session	28/08/23/FN	Marks	50
Course code	EI3551	Course Title	PROCESS CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V/-	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is the need for Process Control in any chemical plant	C301.1	U
2.	Draw the basic block diagram of a Generalized Process Control system	C301.1	A
3.	List the 4 major parameters that needs to be controlled in any process plant	C301.1	R
4.	State the mathematical model of any measuring system	C301.1	R
5.	Define steady state condition , mathematically	C301.1	U
6.	What do you mean by deviation variable	C301.1	A
7.	Why is there a need for linearization of non-linear systems	C301.1	A
8.	Give a few examples for Electrical actuator	C301.2	R
9.	Mention the difference between Inherent and Installed Valve characteristics	C301.2	U
10.	What is the need for a valve positioner	C301.2	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With suitable aids , explain in detail the mathematical modeling for any Pressure process of your assumption	C301.1	U
	OR		
12.	With suitable aids , explain in detail the mathematical modeling for any Flow process of your assumption	C301.1	U
13.	Explain in detail about one pneumatic and one electrical actuator with suitable diagrams	C301.2	R
	OR		
14.	Derive the various equations that exhibit the 3 valve characteristics, and also, explain about the effective valve characteristics	C301.2	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Derive the transfer function of two tanks in an Interacting mode, with suitable assumptions	C301.1	A
	OR		
16.	When three tanks are connected in series in a non-interacting manner, derive the transfer function between the height of tank 3 to inflow of first tank	C301.1	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: Dr.S.M.GiriRajkumar /ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - I			Date / Session	31.08.2023/FN	Marks	50
Course code	IC3501	Course Title	Advanced Control Theory			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Draw the block diagram of a system with state feedback.	C302.1	U
2.	What is pole placement by state feedback?	C302.1	R
3.	State control law.	C302.1	A
4.	What is state observer? List the types of observer.	C302.1	C
5.	Define separation principle.	C302.1	AZ
6.	Describe about state feedback with integral control.	C302.1	E
7.	State the properties of nonlinear systems.	C302.2	A
8.	Define jump resonance.	C302.2	R
9.	What is phase plane method?	C302.2	U
10.	List the common physical non linearity.	C302.2	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	The state model of a system is given by $\begin{bmatrix}\dot{x}_1\\ \dot{x}_2\\ \dot{x}_3\end{bmatrix}=\begin{bmatrix}0 & 0 & 1\\ -2 & -3 & 0\\ 0 & 2 & -3\end{bmatrix}\begin{bmatrix}x_1\\ x_2\\ x_3\end{bmatrix}+\begin{bmatrix}0\\ 2\\ 0\end{bmatrix}[u] \qquad y=[1 \quad 0 \quad 0]\begin{bmatrix}x_1\\ x_2\\ x_3\end{bmatrix}$ Convert the state model to observable phase variable form.	C302.1	A
	OR		
12.	Consider a linear system described by the transfer function. $\frac{Y(s)}{U(s)}=\frac{10}{s(s+1)(s+2)}$ Design a feedback controller with a state feedback so that the closed loop poles are placed at -2, -1± j1.	C302.1	R
13.	Consider the system represented by $\dot{X}=AX+BU \quad \begin{bmatrix}\dot{x}_1\\ \dot{x}_2\\ \dot{x}_3\end{bmatrix}=\begin{bmatrix}0 & 1 & 0\\ 0 & 0 & 1\\ -6 & -11 & -6\end{bmatrix}\begin{bmatrix}x_1\\ x_2\\ x_3\end{bmatrix}+\begin{bmatrix}0\\ 0\\ 1\end{bmatrix}[u] \quad y=[1 \quad 0 \quad 0]\begin{bmatrix}x_1\\ x_2\\ x_3\end{bmatrix}$ Design a full order state observer such that eigen values are at $-2\pm j2\sqrt{3}$ - 5.	C302.1	U
	OR		
14.	Explain about the servo design with state feedback and integrator control with an example.	C302.1	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	a) Explain in detail about the different types of non-linearity in control system. b) Illustrate the concept of singular points.	C302.2	U
	OR		
16.	A single-input system is described by the following state equations $\ddot{e} + 2\xi\omega_n\dot{e} + \omega_n^2 e = 0$, where $\xi = 0, \omega_n = 1$ rad/sec, e(0) = 1.5 and e(0)=0. Determine the singular point and construct the phase trajectory, using the isocline method.	C302.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering Tiruchirapalli

Internal Assessment Test - II			Date/ Session	09.10.2023/FN	Marks	50
Course code	CIC342	Course Title	Thermal Power Plant Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Specify the sensors used for the measurement of oxygen in flue gas.	C303PE144.2	U
2.	Write the working principle of Orsat flue gas analyzer.	C303PE144.2	R
3.	What are the instruments used to measure feed water temperature?	C303PE144.2	A
4.	Which is the predominant factor in setting of automatic controllers for optimum efficiency?	C303PE144.3	C
5.	What is the role of attemperator?	C303PE144.3	AZ
6.	What do you mean by interlocks? Where are interlocks employed in boiler operation? Why?	C303PE144.3	E
7.	What do you mean by draft? List the types in it.	C303PE144.3	A
8.	What are the factors affecting the combustion efficiency of boilers?	C303PE144.3	U
9.	Define air-fuel ratio.	C303PE144.3	A
10.	What do you mean by soot blowing?	C303PE144.3	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Discuss about different controllers used in boiler plant.	C303PE144.3	U
	OR		
12.	What are the controllers used in deaerator?	C303PE144.3	C
13.	Write a note on single, two and three element control.	C303PE144.3	A
	OR		
14.	How will you measure and control furnace draft?	C303PE144.3	E

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	How will you analyze flue gas?	C303PE144.2	A
	OR		
16.	Discuss about turbine speed and vibration measurement.	C303PE144.2	C

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date / Session	07.10.2023 / FN	Marks	50
Course code	CIC345	Course Title	Renewable Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V / A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List the disadvantages of wind energy systems.	C305PE3V47.2	R
2.	What do you understand by the term of solidity ratio of wind turbine?	C305PE3V47.2	U
3.	What are the types of rotors for vertical axis wind turbine?	C305PE3V47.2	R
4.	What is islanding?	C305PE3V47.2	R
5.	Draw the equivalent circuit of a solar cell.	C305PE3V47.3	R
6.	List the advantages of concentrating collector over flat plate collector.	C305PE3V47.3	A
7.	Define collector efficiency.	C305PE3V47.3	R
8.	Differentiate between direct beam and diffuse radiation.	C305PE3V47.3	AZ
9.	The maximum efficiency of solar cells are very low – Justify the statement.	C305PE3V47.3	AZ
10.	Give the different types of solar ponds.	C305PE3V47.3	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Compare the vertical axis wind turbine and horizontal axis wind turbine.	C305PE3V47.2	AZ
	OR		
12.	Generalize the factors to be considered for the siting to install the wind power plant.	C305PE3V47.2	R
13.	Explain the working of Pyranometer and Pyrheliometer with the help of neat sketch.	C305PE3V47.3	R
	OR		
14.	Discuss the construction and working principle of central receiver power plants.	C305PE3V47.3	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain “Hill Climbing” method of MPPT algorithm with a flowchart.	C305PE3V47.3	U
	OR		
16.	With the help of block diagrams, explain the operations of stand-alone and grid interactive solar PV systems.	C305PE3V47.3	R

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date / Session	03/10/23/FN	Marks	50
Course code	EI3551	**Course Title**	PROCESS CONTROL			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year	III	**Semester/ Section**	V/-	**Department**	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Name a few types of valves	C301.3	R
2.	What is the effect of cavitation in valves	C301.3	A
3.	Mention the normally used (assumed) valve co-efficient	C301.3	R
4.	What is the need for valve positioner	C301.3	U
5.	What is the mathematical model for valves in general	C301.3	R
6.	Define neutral zone	C301.4	U
7.	What is the limitation of PD controllers	C301.4	AZ
8.	Can , regular ON/OFF controllers used for continuous control? Justify	C301.4	AZ
9.	What is the transfer function of a typical PID controller	C301.4	U
10.	What do you mean by Bumpless transfer in Controllers	C301.4	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain about the various Valve body used in control valves in detail	C301.3	R
	OR		
12.	Write short notes i. Valve selection ii. Control valve sizing	C301.3	A
13.	Explain in detail with suitable model graphs on the composite modes of P+I+D controllers	C301.4	U
	OR		
14.	Write short notes i. ON/OFF controls and single speed floating point ii. Multi floating points , and now it emerges to be a proportional controller , with mentions of bandwidth	C301.4	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Design a PD controller for output , for a error pattern, in which error varies from 0 to 1 (linearly between time interval of 0 to 1), error remains constantly at 1 (between time interval of 1 to 3), error decreased from 1 to 0 , linearly (between time interval of 3 to 5) , and after t=5, the error is zero. With proportionality constant of 6, derivate constant of 1 s , and initial output of 20, sketch the error pattern of the output.	C301.4	E
	OR		
16.	Design a PID controller for output, for a error pattern, in which error varies from 0 to 1 (linearly between time interval of 0 to 1), error remains constantly at 1 (between time interval of 1 to 3), and after t=3, the error is zero. With proportionality constant of 5, Integral constant of 1 per s, derivate constant of 1 s , and initial output of 20, sketch the error pattern of the output.	C301.4	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: S.M.GiriRajkumar/ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - II			Date / Session	05.10.2023/FN	Marks	50
Course code	IC3501	Course Title	Advanced Control Theory			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V	Department	ICE	

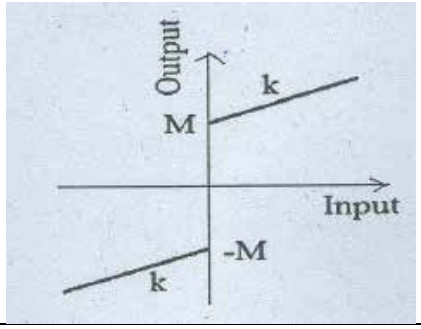
Part – A

(Answer all the questions 10 x 2 = 20 marks)

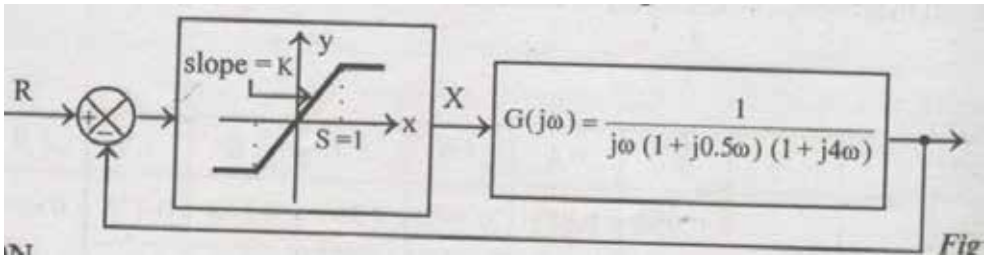
Q. No.	Questions	CO	Skills
1.	What are the methods available for the analysis of nonlinear system?	C302.2	U
2.	List the different nonlinearities.	C302.2	R
3.	Draw the intersection of $-1/K_N$ locus and $G(j\omega)$ locus.	C302.2	A
4.	What are limit cycles?	C302.2	C
5.	What is describing function?	C302.3	AZ
6.	Write the describing function of backlash non linearity.	C302.3	E
7.	Draw the input and output characteristics of a relay with dead zone and hysteresis	C302.3	A
8.	Explain about stable limit cycle.	C302.3	R
9.	In describing function analysis, how the stability of nonlinear system is determined?	C302.3	U
10.	State the stability criterion for nonlinear systems, when the nonlinearity is replaced by the describing function K_N.	C302.3	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail about the different types of non-linearity in control system with a neat diagram.	C302.2	A
	OR		
12.	Derive the describing function of dead zone non-linearity.	C302.2	R
13.	Obtain the describing function of the following non linearity shown in figure. 	C302.3	U
	OR		
14.	Derive the describing function of saturation non-linearity.	C302.3	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Consider a unity feedback system shown in figure having a saturating amplifier with gain K. Determine the maximum value of K for the system to stay stable. What would be the frequency and nature of limit cycle for a gain of K = 2.5?  Fig	C302.3	U
OR			
16.	Illustrate the stability analysis using describing function.	C302.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering, Tiruchirapalli

Internal Assessment Test - III			Date/ Session	08.11.2023/FN	Marks	50
Course code	CIC342	Course Title	Thermal Power Plant Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List the functions performed by all burners.	C303PE144.4	U
2.	List the types of stokers.	C303PE144.4	R
3.	What is the need for cyclone furnace?	C303PE144.4	A
4.	Explain burner management system.	C303PE144.4	C
5.	List the types of atmospheric fluidized bed boilers.	C303PE144.5	AZ
6.	Distinguish single-point positioning control and parallel positioning control.	C303PE144.5	E
7.	List the factors affecting combustion efficiency of boiler.	C303PE144.5	A
8.	What are steam and water turbines?	C303PE144.6	U
9.	Define critical temperature and pressure.	C303PE144.6	A
10.	How are steam turbines classified?	C303PE144.6	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the various control schemes for speed and load control in turbine.	C303PE144.4	U
	OR		
12.	Explain in detail about the burner management system.	C303PE144.4	C
13.	Discuss about combustion control for liquid and solid fuel fired boilers.	C303PE144.5	A
	OR		
14.	Explain in detail about i. air fuel ratio control ii. safety interlocks.	C303PE144.5	E

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain the various control schemes for speed and load control in turbine.	C303PE144.6	U
	OR		
16.	Explain in detail about free governor mode operation.	C303PE144.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date / Session	07.11.2023 / FN	Marks	50
Course code	CIC345	Course Title	Renewable Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V / A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Identify the environmental impact of extracting geothermal energy.	C305PE3V47.4	A
2.	Define geothermal gradient.	C305PE3V47.4	R
3.	List the environmental benefits of utilization of biomass.	C305PE3V47.4	R
4.	What are the different forms of biomass available as biofuels?	C305PE3V47.4	R
5.	What are the factors that affect the generation of biogas?	C305PE3V47.4	R
6.	What is Biomass cogeneration?	C305PE3V47.4	R
7.	Define tidal range with respect to tidal power plant.	C305PE3V47.5	R
8.	Write a note on wave energy.	C305PE3V47.5	R
9.	List the advantage of ocean thermal energy conversion system.	C305PE3V47.5	A
10.	Mention the different tidal power schemes.	C305PE3V47.5	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain with neat sketch the various methods of harvesting techniques in geothermal source. List out its merits and demerits.	C305PE3V47.4	R, A
	OR		
12.	Explain with neat diagram, the floating dome type biogas plant.	C305PE3V47.4	R
13.	Describe the various components and working of the hydroelectric system.	C305PE3V47.4	R
	OR		
14.	Explain with neat diagram the working of a cogeneration plant.	C305PE3V47.4	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain the methods of energy extraction technique on ocean tidal energy source.	C305PE3V47.5	R
	OR		
16.	Explain the principle of operation of open cycle and closed cycle OTEC system.	C305PE3V47.5	R

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date/ Session	02-11-23/FN	Marks	50
Course code	EI 3551	Course Title	PROCESS CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V/-	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Mention two tuning methods of PID controller tuning	C301.5	R
2.	What is the formula for PI controller tuning using any method other than Z-N method	C301.5	R
3.	State the FOPTD standard model	C301.5	R
4.	Draw the ‘S” curve, and mention the formula to get “T”, and “K”	C301.5	AZ
5.	Can a feed forward control exist without a feedback control? Justify	C301.5	A
6.	What is the other name for a cascaded control	C301.5	U
7.	Define an Inferential control strategy	C301.5	U
8.	Define a Multiple input variable , with an example	C301.6	U
9.	State the difference between feed forward and Predictive control	C301.6	A
10.	Draw the block diagram for a Model Predictive Controller	C301.6	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Elaboarte the various forms of composite controller tuning CC method with sutiable assumptions	C301.5	R
	OR		
12.	Write Short notes on i. Selective control ii. Ratio control	C301.5	U
13.	Describe in detail about cascaded control with sutiable PI diagram, block diagram and necessary model graphs	C301.5	U
	OR		
14.	Describe in detail about feed forward with feedback control with sutiable PI diagram,block diagram and necessary model graphs	C301.5	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain about a MIMO process and how it is controlled using model predictive control strategy. Make suitable assumptions	C301.6	C
	OR		
16.	In detail expalin about the control strategies deployed for a Distillation column	C301.6	A

Bloom’s Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: S.M.GIRI RAJKUMAR

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - III			Date/ Session	06.11.2023/FN	Marks	50
Course code	IC3501	Course Title	Advanced Control Theory			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	V	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is the objective of optimal control theory?	C302.4	R
2.	What are the methods to get solution for optimal control theory	C302.4	U
3.	List the requirements for the formulation of optimal control problem.	C302.4	A
4.	State Lyapunov's stability theorem.	C302.4	C
5.	What is meant by cost function? List the types of cost function?	C302.4	AZ
6.	Write the applications of optimal control theory.	C302.4	E
7.	What are the differences between LQR & LQE?	C302.5	A
8.	What is meant by Kalman bucy filter?	C302.5	R
9.	Write the equation for Kalman gain formulation.	C302.5	A
10.	Write the advantages of Kalman filter.	C302.5	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Determine the optimal gain of a system with $A = \begin{bmatrix} 0 & 1 \\ 0 & -1 \end{bmatrix}$, $B = \begin{bmatrix} 0 \\ 1 \end{bmatrix}$, $Q = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, $R = [1]$ Whose performance index, $J = \int_0^a [x^T Q x + U^T R U]dt$	C302.4	A
	OR		
12.	Write and explain formulation process of optimal control problem with an example.	C302.4	R
13.	Derive the Riccati's equation of continuous time linear state regulator.	C302.4	U
	OR		
14.	Consider a system $\dot{x}(t) = \begin{bmatrix} 0 & 2 \\ 0 & 0 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} + \begin{bmatrix} 0 \\ 1 \end{bmatrix} U(t)$ which have desired control signal $U^*(t) = -[k_1 \quad k_2] \begin{bmatrix} x_1(t) \\ x_2(t) \end{bmatrix}$ is subjected to the performance index $J = \frac{1}{2}\int_0^a [x^T x + u^T u]dt$. Determine unknown gain value k, the desire performance index J, J^ and also optimum control signal u*(t).	C302.4	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Write notes on optimal estimation for linear continuous time systems.	C302.5	U
	OR		
16.	Describe about the Kalman-Bucy filter.	C302.5	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

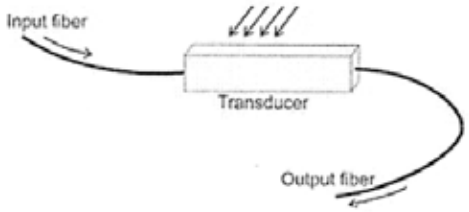
Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date / Session	02.09.2023 / FN	Marks	50
Course code	EI8075	Course Title	Fibre Optics and Laser Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII / A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Light travels from air into an optical fiber with an index of refraction of 1.44. If the angle of incidence on the end of the fiber is 22°, what is the angle of refraction inside the fiber?	C404-E31.1	A
2.	Differentiate Single mode fibre from multimode fibers	C404-E31.1	U
3.	List the characteristics of optical fibre.	C404-E31.1	R
4.	Define absorption losses.	C404-E31.1	R
5.	Define Dispersion.	C404-E31.1	R
6.	What is meant by numerical aperture? Draw suitable diagram.	C404-E31.1	R
7.	Why do we prefer step index single mode fibre for long distance communication?	C404-E31.1	U
8.	Identify whether the given diagram is a representation of intrinsic or extrinsic fiber optic sensor. 	C404-E31.2	A
9.	What is meant by Attenuation Loss in communication?	C404-E31.2	R
10.	Write the expression of fiber attenuation at a given wavelength ‘λ’. What is another name of both scatter method?	C404-E31.2	U&R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With a neat diagram, explain how total internal reflection is achieved in optical fibers? Also derive the expression for Numerical Aperture.	C404-E31.1	A
	OR		
12.	Explain in details about different types of fibres and their properties.	C404-E31.1	R
13.	Discuss about the various sources of fiber losses in fiber optic transmission characteristics	C404-E31.1	A
	OR		
14.	Explain details the various Scattering losses associated with fibre optics.	C404-E31.1	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Elaborate about the construction and operation of optical domain reflectometer.	C404-E31.2	R
	OR		
16.	Explain in detail how attenuation in optical fibres are measured by cut back method with suitable diagram.	C404-E31.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date / Session	31.08.2023/FN	Marks	50
Course code	EI8091	Course Title	Instrumentation in Petrochemical Industries			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is Crude Oil?	C402.1	R
2.	Define separator and mention its type	C402.1	R
3.	What is primary oil recovery?	C402.1	R
4.	Define API gravity	C402.1	R
5.	Before the invention of API gravity, how was crude oil classified?	C402.1	U
6.	Differentiate upstream and downstream in oil and gas industry	C402.1	R
7.	State the importance of Trays in separation process	C402.2	U
8.	Highlight the difference between Bubble Cap Trays and Valve Trays	C402.2	U
9.	Mention the differences between batch and continuous distillation column	C402.2	U
10.	Define Thermal Cracking	C402.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail about different types of oil recovery method.	C402.1	R, U
	OR		
12.	Explain in detail about any two types of separators with neat diagram.	C402.1	R
13.	Explain in detail about the working of Reciprocating compressor with neat diagram	C402.1	R
	OR		
14.	Discuss in detail about Hazard Identification and Risk Assessment	C402.1	R, U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail about the working of distillation column with a neat diagram	C402.2	R
	OR		
16.	Explain the process of Visbreaking with neat diagram	C402.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman/AP-ICE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date / Session	04/09/23 / FN	Marks	50
Course code	EI8692	Course Title	ELECRONIC INSTRUMENTATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Differentiate Electronic and Analog Voltmeter.	C405E42.1	R
2.	Mention the different types of measurement that can be done using Vacuum tube voltmeter.	C405E42.1	R
3.	Draw the diagram of Differential Amplifier Voltmeter.	C405E42.1	R
4.	List out the advantages of Source Follower.	C405E42.1	R
5.	Write a short note on the various techniques in measurement of AC current using Vacuum Type Voltmeter.	C405E42.1	R
6.	How do we measure power at audio frequency?	C405E42.1	R
7.	What are the components involved in construction of CRO?	C405E42.2	R
8.	List the uses of sampling Oscilloscope.	C405E42.2	U
9.	Classify the types of Oscilloscope.	C405E42.2	U
10.	What is the purpose of X & Y deflection plates in CRO?	C405E42.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail the working of Digital Multimeter with a neat diagram	C405E42.1	U
	OR		
12.	Draw and explain any two modes of operations of differential amplifier.	C405E42.1	U
13.	With a neat block diagram, explain the operation of a fully automated Instrumentation system for a generalized case.	C405E42.1	U
	OR		
14.	Explain the operation of the Microprocessor based Instruments with a neat Block diagram.	C405E42.1	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With neat diagram explain the functional blocks of general purpose Oscilloscope	C405E42.2	U
	OR		
16.	Explain the working principle of Digital storage oscilloscope with a neat block diagram and distinguish between Analog and storage digital oscilloscopes.	C405E42.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: Dr.K.Gaayathry/ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - I			Date / Session	28.08.2023/FN	Marks	50
Course code	EI8751	Course Title	Industrial Data Networks			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List some applications of networks.	C401.1	AZ
2.	Write the classification of switching?	C401.1	U
3.	What are the types of modes in HDLC?	C401.1	A
4.	What is meant by bit stuffing?	C401.1	C
5.	Explain the types of configuration in command/response.	C401.1	AZ
6.	List the advantages of CSMA/CD.	C401.1	E
7.	What is the use of bridges?	C401.2	A
8.	What is meant by flooding?	C401.2	R
9.	Define gateways.	C401.2	U
10.	Give some application of Ethernet.	C401.2	AZ

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the functionality of various layers in OSI model with neat diagram.	C401.1	U
	OR		
12.	a) Write a short note on token passing. b) Write the frame format for token ring protocol.	C401.1	A
13.	Explain the circuit switching in detail with necessary diagrams.	C401.1	R
	OR		
14.	a) Describe the TCP/IP with necessary diagrams b) Write a short note on HDLC and draw the frame format of HDLC	C401.1	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Describe the different types of bridges in detail.	C401.2	E
	OR		
16.	What is meant by router? Explain the components of router and any one routing techniques.	C401.2	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	05.09.2023/FN	Marks	50
Course code	GE8073	Course Title	Fundamentals of Nano Science			
Batch No.		Duration	90 mins	Academic Year	2023-24	
Year/	IV	Semester	VII	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define nanotechnology with an example.	C410.E64.1	R
2	Describe the information storage applications of nanostructured magnetic materials.	C410.E64.1	R
3	How does particle size affect the surface area?	C410.E64.1	U
4	Write a note on surface Plasmon resonance effect.	C410.E64.1	U
5	List any four day to day live commercial applications of nanotechnology.	C410.E64.1	A
6	What are the applications of quantum dots?	C410.E64.1	R
7	Mention the applications of nano wires.	C410.E64.1	U
8	Mention any two nano forms of carbon.	C410.E64.2	R
9	Sputtering is better than vapour phase deposition. Justify.	C410.E64.2	AU
10	Distinguish the top-down and bottom-up approaches for the synthesis of nanomaterials with examples.	C410.E64.2	A

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Describe about the implications of nano science in the field of Physics, Chemistry, Biology and Engineering	C410.E64.1	U
	OR		
12	How nanomaterials are classified based on dimensions. Explain with an example.	C410.E64.1	U
13	Explain the principle involved in nanoparticle synthesis by vapour phase deposition methods?	C410.E64.2	U
	OR		
14	Discuss the high energy ball milling in detail with a few merits of the method.	C410.E64.2	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Discuss various application of quantum wires in nanotechnology	C410.E64.1	R
	OR		
16	Discuss on the effect on properties in nano: Mechanical, Electrical, optical, magnetic and thermal.	C410.E64.1	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: Dr.M.Shanmugavalli – Prof., ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date / Session	07.10.2023 / FN	Marks	50
Course code	EI8075	Course Title	Fibre Optics and Laser Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII / A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Classify optical modulators.	C404-E31.2	R
2.	What is the basic principle of electro optic modulator?	C404-E31.2	R
3.	What are moire fringes?	C404-E31.2	R
4.	Describe Pockels effect.	C404-E31.2	U
5.	How four level laser is better than three level laser?	C404-E31.3	AZ
6.	Examine why optical pumping is preferred in lasers?	C404-E31.3	R
7.	Define the term population inversion.	C404-E31.3	R
8.	State the principle of Q switching.	C404-E31.3	R
9.	When is the laser said to be mode locked?	C404-E31.3	U
10.	What is the importance of Brewster windows in gas laser?	C404-E31.3	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain how optical fibers can be used to measure temperature, pressure and liquid level in industries	C404-E31.2	A
	OR		
12.	How fibre optic sensors are used in measurement of current and voltage?	C404-E31.2	A
13.	Illustrate with examples the two level and three level laser.	C404-E31.3	R
	OR		
14.	Sketch the constructional details a semiconductor laser and explain.	C404-E31.3	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Write short notes on the following: (i) Cavity Dumping, (ii) Q switching.	C404-E31.3	R
	OR		
16.	Discuss about construction and working of CO_2 laser and Nd-YAG laser	C404-E31.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date / Session	05/10/2023	Marks	50
Course code	EI8091	Course Title	Instrumentation in Petrochemical Industries			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Write down the chemical reaction of Acetylene production using Chemical Reaction Process and Thermal Cracking Process	C402.3	R
2.	What is Dowtherm?	C402.3	R
3.	Give the reaction that yields Formaldehyde from the process of oxidation and dehydrogenation	C402.3	R
4.	Explain how CFCs are affecting the Ozone layer	C402.3	U
5.	List out any 5 derivatives of Methane	C402.3	R
6.	Explain why Copper Oxide is preferred over other oxides as catalyst, in Methanol production	C402.3	U
7.	What is octane number and which process is used to increase the octane number of a compound	C402.2	R
8.	Differentiate Feedback, Feedforward and Ration Control	C402.2	R
9.	Define Weeping and Entrainment condition in Distillation Column	C402.2	R
10.	List out the differences between Traditional, Semi-Regenerative and Continuous Regenerative catalytic reforming process	C402.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	a. Explain in detail the production of Acetylene by chemical reaction process with neat diagram. (8 marks) b. Write the chemical expression for producing Acetic Acid from Methanol (2 marks)	C402.3	R
	OR		
12.	Explain in detail the production of Wood Alcohol with appropriate chemical reactions	C402.3	R
13.	a. Give the chemical reactions for production of Methanol, Ammonia, n-Butyraldehyde and formaldehyde from Methane (3 marks) b. Explain in detail the production of Ethanolamines from Ethylene with neat diagram (7 marks)	C402.3	R
	OR		
14.	Explain in detail the production of Ethylene Oxide with neat diagram	C402.3	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	What is Alkylation? Explain the process of Sulfuric Acid Alkylation with neat diagram	C402.2	R
	OR		
16.	A ratio control scheme is to be used to maintain a stoichiometric ratio of C_2H_4 and Air (Oxygen) as the feed to Ethylene Oxide reactor. Individual flow controllers will be used for both C_2H_4 and Air streams **Information on the Reactor:** Ø The spans of the electronic flow transmitters are 30 L/min for C_2H_4 and 70 L/min for Air Ø The control valves have pneumatic actuators which are controlled by current-to-pressure (I/P) transducer Ø The ratio station is an electronic instrument with 4-20 mA input and output signals Ø Air-to-Ethylene feed ratio is usually about 10:1 **Using the information given below, do the following:** a. Draw a schematic diagram for the ratio control scheme (8 marks) b. Find out the appropriate gain (K_R) for the ratio station (2 marks)	C402.2	AZ, E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman / AP-ICE

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test - II			Date/ Session	09/10/2023	Marks	50
Course code	EI8692	Course Title	ELECRONIC INSTRUMENTATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VIII/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Differentiate dual beam and dual trace oscilloscope.	C405.E42.3	U
2.	What is the function of wave analyzer?	C405.E42.3	R
3.	State different types of Harmonic Distortion Analyzer.	C405.E42.3	R
4.	Outline the applications of Spectrum analyzer.	C405.E42.3	A
5.	Draw the block diagram of Frequency Selective Wave Analyzer	C405.E42.3	R
6.	State Barkhausen Criterion.	C405.E42.4	R
7.	Write the frequency of oscillations of Wien's bridge and crystal oscillators.	C405.E42.4	R
8.	Mention the advantages of RC phase shift oscillator.	C405.E42.4	U
9.	What is the difference between amplifier and oscillator ?	C405.E42.4	U
10.	List the requirements of a sweep generator.	C405.E42.4	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail the working of Digital Storage Oscilloscope with a neat diagram	C405.E 42.3	U
	OR		
12.	Draw and Explain the block diagram of Harmonic Distortion Analyzer with a neat diagram.	C405.E 42.3	U
13.	Draw and Explain the circuit of Wein's Bridge Oscillator and estimate its frequency of oscillation.	C405.E 42.4	U
	OR		
14.	With a neat diagram describe the Hartley oscillator and derive the expression for frequency of oscillation and condition of oscillation.	C405.E 42.4	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Draw the circuit diagram of triangular wave-shape generator and obtain its generated frequency expression.	C405.E 42.4	U
	OR		
16.	Draw the block diagram of Function Generator and explain each block.	C405.E 42.4	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge : Dr.K.Gaayathry / ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - II			Date / Session	03.10.2023/FN	Marks	50
Course code	EI8751	Course Title	Industrial Data Networks			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List the applications of ARCNET.	C401.2	AZ
2.	Tabulate the differences between RS 232 and RS 485 standards.	C401.2	U
3.	Explain the various requirements of networks used for control purposes	C401.2	A
4.	Write the features of device net.	C401.2	C
5.	Write the types of HART networks and HART communication modes.	C401.3	AZ
6.	Mention the benefits of HART communication.	C401.3	E
7.	What is meant by function block.	C401.3	A
8.	Write the features of field bus.	C401.3	R
9.	Define Interoperability	C401.3	U
10.	Write the advantages of OPC.	C401.3	AZ

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Discuss about the ARCNET configuration with neat diagram.	C401.2	U
	OR		
12.	With neat sketch, explain the components of AS-i.	C401.2	A
13.	Explain the message structure of HART with a neat diagram.	C401.3	R
	OR		
14.	a) Write about HART commands and list six commands in each. b) Explain any three applications of HART with a neat diagram.	C401.3	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Describe the working of OLE for process control?	C401.3	E
	OR		
16.	Explain the general field bus architecture in detail?	C401.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	10.10.2023	Marks	50
Course code	GE8073	Course Title	Fundamentals of Nano Science			
Batch No.		Duration	90 mins	Academic Year	2023-24	
Year/	IV	Semester	VII	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What are carbon nano tubes?	C410.E64.2	R
2	How are CNT classified?	C410.E64.2	R
3	Define MBE and MOMBE.	C410.E64.2	U
4	Define nanometal oxides	C410.E64.3	U
5	Define properties of the nanoscale fibers of aluminium oxide.	C410.E64.3	A
6	Give a brief note on applications of nanoclays.	C410.E64.3	R
7	Define graphene and carbon nanotube.	C410.E64.2	U
8	Write down the applications of quantum dots.	C410.E64.3	R
9	Define nano-sized aluminium oxide.	C410.E64.3	AU
10	Define properties of the nanoscale fibers of aluminium oxide.	C410.E64.3	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Discuss about structure property relationships at nano.	C410.E64.3	U
	OR		
12	Discuss about the metal oxides used in nano sensors.	C410.E64.3	U
13	Write note on molecular beam epitaxy and atomic layer epitaxy.	C410.E64.2	U
	OR		
14	Explain about MOMBE.	C410.E64.2	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Explain Single Wall Carbon Nanotubes (SWCNT) and Multi Wall Carbon Nanotubes (MWCNT).	C410.E64.3	R
	OR		
16	Explain about the synthesis of CNT.	C410.E64.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date / Session	07.11.2023 / FN	Marks	50
Course code	EI8075	Course Title	Fibre Optics and Laser Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII / A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the uses of shielding gas during material processing by lasers?	C404-E31.4	U
2.	What are the two modes of laser welding process?	C404-E31.4	R
3.	What is Doppler effect?	C404-E31.4	R
4.	Mention the applications of LIDAR.	C404-E31.4	R
5.	What are the advantages of laser cutting?	C404-E31.4	R
6.	What are the industrial application of lasers?	C404-E31.5	A
7.	What is holography?	C404-E31.5	R
8.	What are the conditions for recording a hologram?	C404-E31.5	A
9.	Distinguish between hologram and photographic film?	C404-E31.5	R
10.	What are the different laser interactions with tissues?	C404-E31.6	A

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	How laser is used to measure distance and length?	C404-E31.4	A
	OR		
12.	Explain in detail the measurement of velocity using laser.	C404-E31.4	R
13.	Explain the application of laser in the fields of cutting and welding.	C404-E31.4	R
	OR		
14.	How laser can be used for melting in material processing?	C404-E31.4	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail the hologram recording and reconstruction	C404-E31.5	R
	OR		
16.	Explain the holographic interferometry and mention its applications.	C404-E31.5	R, A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date / Session	09.11.2023 / FN	Marks	50
Course code	EI8091	Course Title	INSTRUMENTATION IN PETROCHEMICAL INDUSTRIES			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List the parameters to be measured in the refinery process	C402.4	R
2.	Give the dehydrogenation reaction of styrene production, and mention the significance of superheated steam in the process	C402.4	R
3.	What is BTX? where it is used?	C402.4	R
4.	What are the applications of High-Density Polyethylene (HDPE)?	C402.4	R
5.	Higher the activity of the catalyst, higher the conversion. Justify	C402.4	U
6.	Define Flash Point	C402.5	R
7.	Why Hazardous Area Classification is necessary?	C402.5	U
8.	When do you call a system a “Intrinsically Safe System”	C402.5	U
9.	When will an explosion occur?	C402.5	R
10.	What is deluge system	C402.5	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	a. Explain the working of Ultrasonic Flow Meter with a neat sketch (5 marks) b. Explain any four criteria that an instrument must satisfy in order to be used in oil and gas industry (5 marks)	C402.4	R
	OR		
12.	With a neat sketch explain the production of Ethylene Oxide from Direct Oxidation process	C402.4	R
13.	Explain the production of Aromatic Hydrocarbon (BTX production) from Tetraethylene Glycol Process	C402.4	R
	OR		
14.	a. List out the applications of LDPE, HDPE & UHMW (5 marks) b. Draw the molecular arrangements of Isotactic, Syndiotactic and Atactic Polypropylene, and highlight its structural differences (5 marks)	C402.4	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	a. Discuss in detail the classification of Hazardous Area Zone 0 and Zone 1 (5 marks) b. Mention and explain any 3 Properties of Flammable Substance (5 marks)	C402.5	R, U
	OR		
16.	With a neat sketch explain in detail the working of Explosion Suppression Systems	C402.5	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman / AP-ICE

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test – III			Date/ Session	08/11/2023	Marks	50
Course code	EI8692	Course Title	ELECRONIC INSTRUMENTATION			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Why is virtual instrumentation necessary?	C405.E42.5	U
2.	Draw the Block diagram of DAQ cards.	C405.E42.5	R
3.	Write the important factors present in Data Acquisition System.	C405.E42.5	U
4.	Why is sub VI used in VI programming technique?	C405.E42.5	U
5.	Draw the architecture of Virtual instruments.	C405.E42.5	R
6.	Define telemetry system. Mention any two applications of telemetry systems.	C405.E42.6	R
7.	Where frequency multiplexing technique is used?	C405.E42.6	A
8.	Compare Frequency and amplitude modulation.	C405.E42.6	U
9.	What is meant by Time division multiplexing?	C405.E42.6	U
10.	State the applications of Phase Modulation.	C405.E42.6	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Draw the block diagram of Virtual instrumentation system and explain each block briefly.	C405. E42.5	U
	OR		
12.	Give a comparative study of virtual instruments and traditional instruments with examples.	C405. E42.5	A
13.	Describe the programming techniques used in virtual instrumentation and evaluate with an example.	C405. E42.5	U
	OR		
14.	List the various DAQ cards used for virtual instrumentation applications and explain any one of DAQ module with serial communication in detail.	C405. E42.5	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail about: (i) Voltage and current telemetry system (ii) Position telemetry system	C405. E42.6	U
	OR		
16.	Describe in detail about pulse amplitude modulation telemetry (PAM) and pulse code modulation telemetry (PCM).	C405. E42.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge : Dr.K.Gaayathry / ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - III			Date/ Session	02.11.2023/FN	Marks	50
Course code	EI8751	Course Title	Industrial Data Networks			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	IV	Semester/ Section	VII	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List the advantages of Modbus.	C401.4	A
2.	What is meant by polling method?	C401.4	U
3.	Write the limitations of Modbus?	C401.4	AZ
4.	What are the states and modes in Profibus.	C401.4	C
5.	List the various troubleshooting tools in Profibus	C401.4	AZ
6.	Write the features of Foundation field bus	C401.4	E
7.	Differentiate IEEE802.3 and EthernetV2.	C401.5	A
8.	What are the three states in Ethernet using CSMA/CD access control?	C401.5	R
9.	Give the types of cables used in communication system	C401.5	U
10.	Write the specifications of 100Mbps Ethernet	C401.5	AZ

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	What is meant by function code? Explain any four with an example and diagram.	C401.4	C
	OR		
12.	Write in detail about troubleshooting of Modbus	C401.4	A
13.	Sketch the architecture of Foundation field bus in detail	C401.4	R
	OR		
14.	Explain in detail about the system operation of Profibus	C401.4	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain the components of radio link with diagrams	C401.5	E
	OR		
16.	Write a short note on thick and thin Ethernet in detail	C401.5	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirapalli

INTERNAL ASSESSMENT - III			Date/ Session	06.11.2023	Marks	50
Course code	GE8073	Course Title	Fundamentals of Nano Science			
Batch No.		Duration	90 mins	Academic Year	2023-24	
Year/	IV	Semester	VII	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is surface analysis?	C410.E64.4	R
2	What is meant by XRD?	C410.E64.4	R
3	What are the disadvantages of ESEM?	C410.E64.4	U
4	What are the applications of SEM?	C410.E64.4	U
5	Why is higher resolution better?	C410.E64.4	A
6	Define quantum tunneling.	C410.E64.4	R
7	Define near-field scanning optical microscopy.	C410.E64.4	U
8	Define nano medicines.	C410.E64.6	R
9	What is Bioimaging?	C410.E64.6	U
10	Describe Liposomes.	C410.E64.6	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	What is meant by Atomic Force Microscope (AFM)? Explain the working principle of AFM.	C410.E64.4	U
	OR		
12	Expand SEM and write its working principle in detail.	C410.E64.4	U
13	Write short notes on SPM, STM.	C410.E64.4	U
	OR		
14	Ellaborate about high-resolution transmission electron microscopy	C410.E64.4	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Write a note on molecular switch.	C410.E64.5	R
	OR		
16	Explain NanoInfoTech : Information storage.	C410.E64.5	R

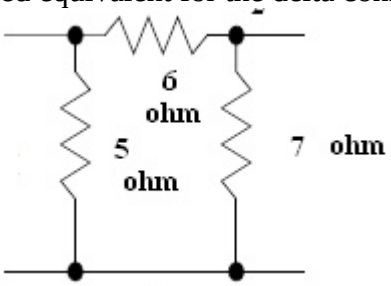
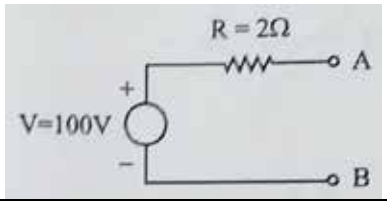
Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test - I			Date/ Session	05-04-2023/FN	Marks	50
Course code	EE3251	Course Title	Electric Circuit Analysis			
Batch No.		Duration	90 mins	Academic Year	2023-2024/EVEN	
Year	I	Semester/ Section	II/A	Department	ICE	

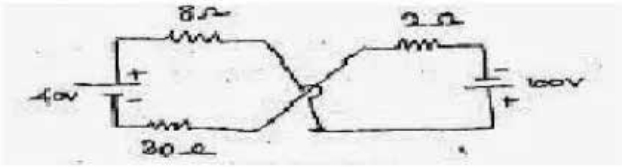
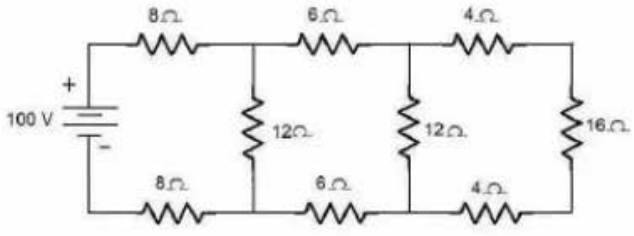
Part – A

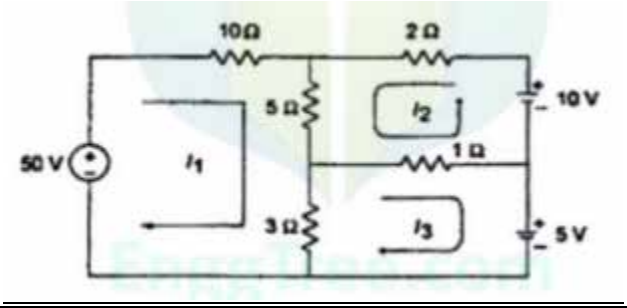
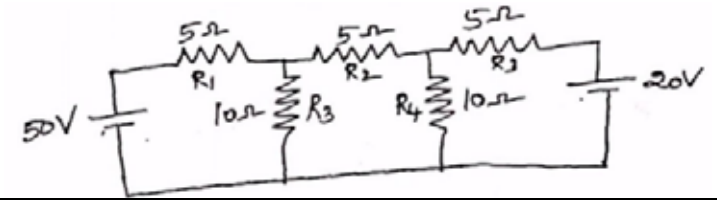
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	State Ohm's law and its limitations.	C113.1	R
2	Define KVL and KCL.	C113.1	R
3	An Electric iron is rated 1000W, 240V. Find the current drawn & resistance of the heating element.	C113.1	Az
4	Define Form factor and Peak factor	C113.1	R
5	Give 2 applications of both series and parallel combination.	C113.1	Az
6	State Norton's theorem.	C113.2	R
7	Draw the Thevenin's equivalent circuit and write the I_L equation.	C113.2	U
8	Obtain the star connected equivalent for the delta connected circuit. 	C113.2	Az
9	Find the equivalent Current source for the given Voltage source with series resistance. 	C113.2	A
10	Define Superposition theorem.	C113.2	R

Part – B

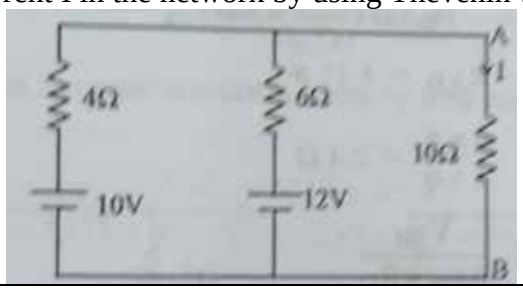
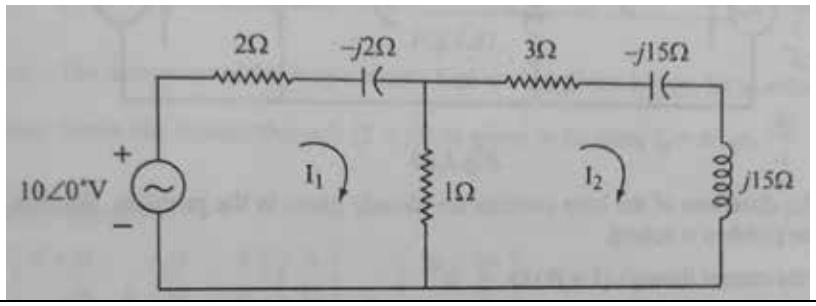
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Find the current I and voltage across 30 ohm Resistor in the circuit shown in the figure. 	C113.1	Az
	Or		
12	Calculate the equivalent resistances across the terminals of the supply and total current supplied by the source 	C113.1	Az

13	Determine the mesh currents, I_1 and I_2 in the circuit shown in the figure. 	C113.2	Az
	Or		
14	Using Nodal Analysis, find the current through R_3 and R_4 for the circuit given. 	C113.2	Az

Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	Determine the current I in the network by using Thevenin's Theorem. 	C113.2	E
	Or		
16	Apply Mesh current method and determine currents through the resistors of the network shown. 	C113.2	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Name of the Faculty In-charge: Dr. M. Shanmugavalli/Prof/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date	03-05-2024	Marks	50
Course code	EE 3251	**Course Title**	ELECTRIC CIRCUIT ANALYSIS			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 – 2024	
Year	I	**Semester/Section**	II / A	**Department**	ICE	

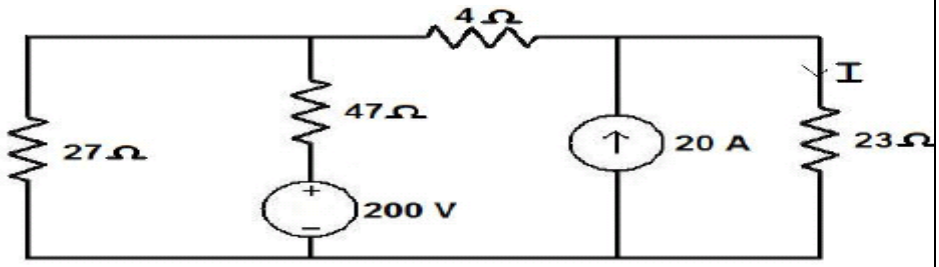
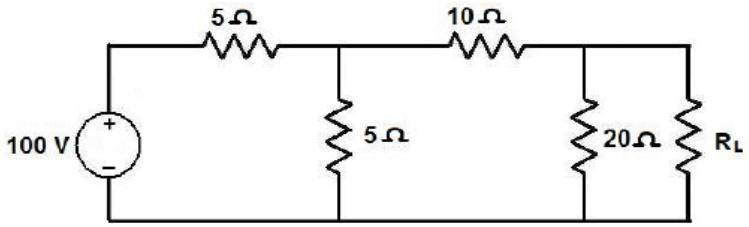
Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	State Superposition theorem.	C113.2	R
2	Define an ideal voltage source.	C113.2	R
3	State reciprocity theorem	C113.2	E
4	Write some applications of Maximum power transfer theorem.	C113.2	R
5	Three equal resistors each of R ohms are connected in star. Find the value of resistors in the equivalent delta.	C113.2	U
6	A voltage source has internal impedance (4+j5) ohm. Find the load impedance for maximum power transfer.	C113.2	E
7	Define quality factor.	C113.5	E
8	Define time constant of RL circuit.	C113.5	E
9	Define transient response.	C113.5	R
10	Define LT and inverse LT.	C113.5	R

Part – B

(Answer all the questions 3 x 10 = 30marks)

Q. No.	Questions	CO	Skills
11	Compute the current in 23 ohm resistor using super position theorem for the circuit shown below. 	C113.2	E
	or		
12	Find the value of RL so that maximum power is delivered to the load resistance shown in figure. Also find out the maximum power. 	C113.2	E

13	Derive the expression for i(t) in a RL series circuit connected to dc step voltage.	C113.2	E
	or		
14	A series RLC circuit is supplied with 100 V supply. R= 20 ohm, L= 10 H, C= 5F. find out the expression for i(t).	C113.2	E
15	A series RLC circuit is supplied with 100 V supply. R= 20 ohm, L= 10 H, C= 5F. find out the expression for i(t).	C113.5	E
	or		
16	Derive the expression for i(t) in a RL series circuit connected to ac source voltage. V= 300 Sin314t. R= 200 ohm, L= 100 mH.	C113.5	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

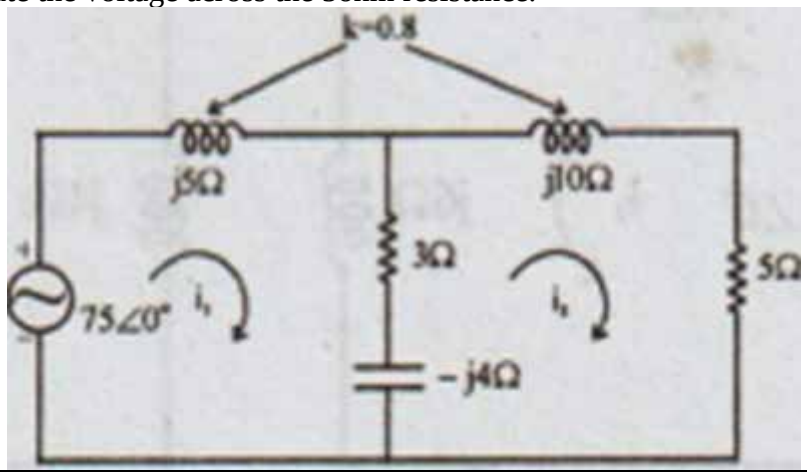
Tiruchirapalli

Internal Assessment Test – III			Date	07-06-2024	Marks	50
Course code	EE 3251	Course Title	ELECTRIC CIRCUIT ANALYSIS			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024 (even)	
Year	I	Semester/Section	II / A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define self and mutual inductance.	C113.4	R
2	Define coefficient of coupling.	C113.4	R
3	State dot rule for coupled circuits.	C113.4	R
4	What are coupled circuits?	C113.4	R
5	A three phase balanced star connected load has 400V line to line voltage and 10A line current. Determine the line to neutral voltage and phase current.	C113.4	U
6	Define line current and phase current.	C113.5	E
7	Write the methods of connections of 3 phase windings?	C113.5	E
8	Differentiate balanced and unbalanced three phase circuit.	C113.5	E
9	What is power and power factor? How will you measure?	C113.6	R
10	Determine the power and power factor if the two wattmeter read i. 1000w each, both positive ii. 1000w each of opposite sign.	C113.6	A

Part – B
(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Two coupled coils with L1=0.02H, L2=0.01H and K=0.5 are connected in 4 different ways, series aiding, series opposing, parallel aiding and parallel opposing. What are the four equivalent inductance?	C113.4	E
	or		
12	Compute the voltage across the 5ohm resistance. 	C113.4	E
13	A series RLC circuit of R=10ohm, L=1mH, C=1000pF is connected to a source of 20Vin series. Find resonant frequency, Q factor and half power frequencies.	C113.4	E
	or		
14	Compare series and parallel resonant circuit.	C113.4	E

Part – C
(Answer all the questions 1 x 10 = 10marks)

15	A 3Ø 4 wire system is connected to a balanced star connected load with impedance of (2+j3)Ω. The phase voltage of the supply is 100V. Find Line voltages Line currents Phase currents Real power Reactive power Apparent power	C113.5	E
	or		
16	Explain about star and delta connected three phase circuits with phasor diagram.	C113.5	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Prepared by: Dr. M. Shanmugavalli/Prof/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – I			Date/ Session	04/04/24 - FN	Marks	50
Course code	EE3403	Course Title	Measurements and Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV/A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is meant by Calibration?	C212.1	R
2.	Distuinguish between accuracy and precision.	C212.1	U
3.	Name the dynamic characteristics of measurement systems.	C212.1	R
4.	What is significance of measurement?	C212.1	R
5.	Write down the different standards of an instrument.	C212.1	R
6.	What is drift?	C212.1	U
7.	The expected value of the voltage across a resistor is 40 V. However the measurement gives a value of 39 V. Calculate the absolute error.	C212.1	AZ
8.	Classify the instruments based on their functions.	C212.2	R
9.	Define Damping Torque.	C212.2	U
10.	A digital voltmeter has readout from 0 to 9999 counts. Determine the resolution of the instrument in volts when the full scaled reading is 9.999 V.	C212.2	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Discuss in detail about the static characteristics of a measurement system.	C212.1	U
	OR		
12.	a) With functional block diagram, explain briefly a generalized measurement system. (6) b) An electrical current of 3 Ampere is flowing through a resistance of 10 ohms. It was found that the resistance was 0.2% greater than what was specified as rated and the ammeter measurement was 0.5% more than the true value. Determine the relative error in power measurement. (4)	C212.1	AZ
13.	By a micrometer screw, the following readings were taken of a certain length : 1.34,1.38,1.56,1.47,1.42,1.44,1.53,1.48,1.40,1.59 mm. Calculate the following. i) Arithmetic mean, ii) Average deviation iii) Standard deviation iv) Variance	C212.1	AZ
	OR		
14.	Expalin in detail about the different types of errors in measuring instruments.	C212.1	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail about the attraction type Moving iron instruments and list out the merits and demerits of MI instruments.	C212.2	U
	OR		
16.	Explain in detail about the construction and working of PMMC instruments with a necessary diagram.	C212.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.K.Gaayathry / ICE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – I			Date / Session	03/04/2024/FN	Marks	50
Course code	EI3451	Course Title	Industrial Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define viscosity.	C210.1	R
2.	How to you measure humidity using Resistive Hygrometer?	C210.1	U
3.	What is dew point?	C210.1	R
4.	What is meant by conductivity?	C210.1	R
5.	Draw the schematic of Microwave Moisture Sensor	C210.1	R
6.	How do you measure moisture in granular substance?	C210.1	U
7.	Explain on how heat is transferred by Conduction, Convection and Radiation	C210.2	R
8.	Mention any 4 limitations of Filled-In Thermometers in industries	C210.2	U
9.	Give the formula used for converting Farenheit to Celcius and Celcius to Farenheit	C210.2	R
10.	Discuss on the error caused due to Immersion effect	C210.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With a neat sketch, explain the construction & working of Saybolt Viscometer and Cone & Plate Rotational Viscometer	C210.1	R
	OR		
12.	a. Highlight the differences between Moisture and Humidity (5 marks) b. with a neat sketch, explain the construction and working of Wet and Dry Bulb Psychrometer (5 marks)	C210.1	R, U
13.	Discuss on the construction and working of Commercial Dew Point Meter with a neat diagram	C210.1	R
	OR		
14.	a. Explain on how to measure Moisture in Lumber (non-destructive method) with a neat diagram – 5 marks b. with a neat diagram, explain the working of Infra-Red Absorption Hygrometer for moisture measurement in gaseous sample – 5 marks	C210.1	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With a neat sketch, explain the construction and working of Vapour Filled Pressure Thermometers, and mention its advantages and limitations	C210.2	R, U
	OR		
16.	With a neat sketch, explain the construction and working of Bimetallic Thermometers, and mention the formula to find out the thermal Expansion	C210.2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman / AP - ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – I			Date / Session	08.04.2024/FN	Marks	50
Course code	IC3401	Course Title	Modern Electronic Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023-24 Even	
Year	II	Semester/ Section	IV/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the functional elements of an instrumentation system? Represent them as a block diagram.	C212.1	A
2.	Define the term voltmeter sensitivity.	C212.1	R
3.	List the different types of electromechanical DC Voltmeters.	C212.1	R
4.	"Electrodynamometer voltmeters are seldom used above powerline frequency". Whether this statement is True or False? Why?	C212.1	A
5.	What is the purpose of mirror placed behind the reading scale of a meter?	C212.1	U
6.	Differentiate accuracy from precision.	C212.1	A
7.	What is Nyquist criterion?	C212.2	R
8.	Define the following terms: Quantization, Dithering.	C212.2	R
9.	Compare Flash ADC with Half Flash or 2 stage ADC.	C212.2	A
10.	List the types of DAC.	C212.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain with diagram and necessary equations the measurement of voltage using permanent magnet moving coil meters.	C212.1	U
	OR		
12.	What is magneto optic effect? How is it utilized for the measurement of AC currents?	C212.1	R,A
13.	Explain the function of rectifier type D'Arsonval AC voltmeter with neat diagram and necessary equations.	C212.1	R
	OR		
14.	Discuss the different methods of Analog phase measurement?	C212.1	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail the Sigma-Delta ADC with block diagram and Flow chart.	C212.2	R
	OR		
16.	An 8 bit current switched R-2R ladder DAC has the following circuit parameters. V_R = +10V; R = 2 kilo ohms. Evaluate the analog output voltage for the following digital input. (i) 10101010, (ii) 01010101, (iii) 11110000	C212.2	E

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

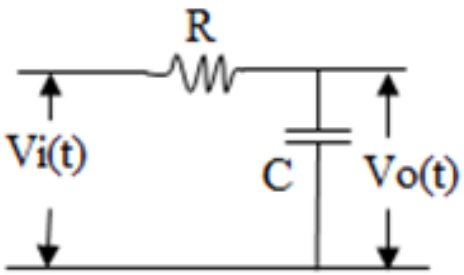
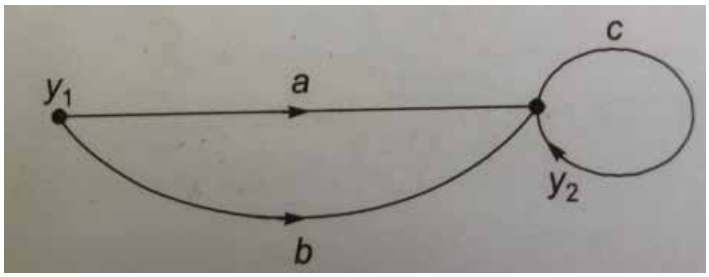
Faculty in-charge: R.Satheesh, AP-ICE.

Saranathan College of Engineering, Tiruchirapalli

Internal Assessment Test - I			Date/ Session	06.04.2024/FN	Marks	50
Course code	IC3451	Course Title	Automatic Control Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV	Department	ICE	

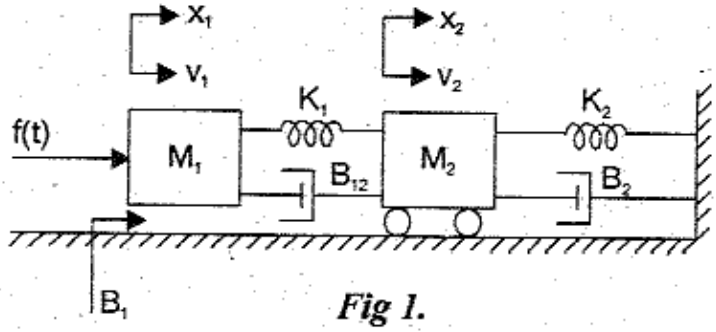
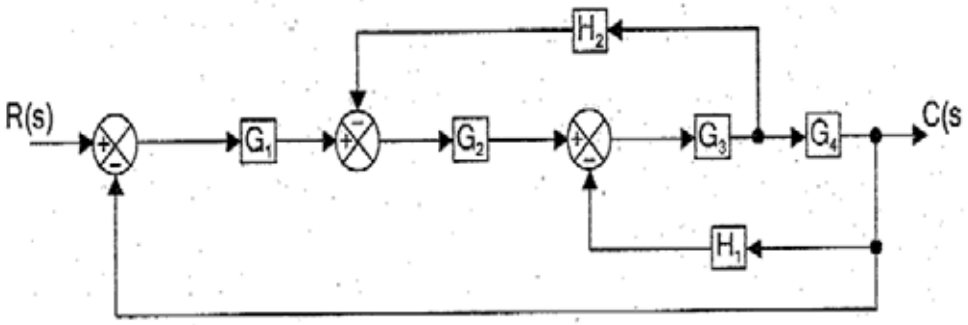
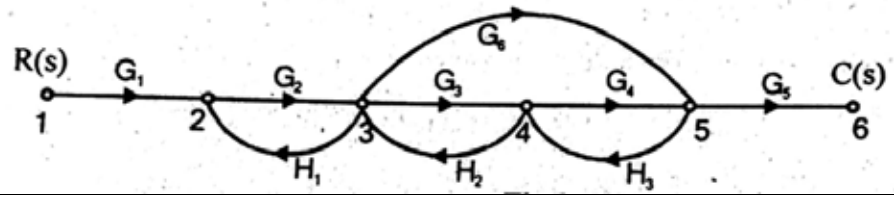
Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Differentiate feed forward and feed backward.	C211.1	AZ
2.	Write the analogous electrical elements in torque current analogy for the elements of mechanical translational system.	C211.1	R
3.	Obtain the transfer function for the electrical network shown in figure. 	C211.1	A
4.	Write the rule for eliminating negative feedback?	C211.1	C
5.	The transfer function between Y_2 and Y_1 in figure is 	C211.1	AZ
6.	What is meant by synchros?	C211.1	E
7.	Find the type and order of a system. $G(s) = \frac{2}{s^2(s+1)(s+5)}$	C211.2	A
8.	Derive the impulse response of first order system.	C211.2	R
9.	List the test input signals	C211.2	U
10.	What are the different types of damping factor ?	C211.2	C

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Write the differential equation governing the mechanical system shown in fig. Draw the force-voltage and force-current electrical analogous circuits and verify by writing mesh and node equations.  *Fig 1.*	C211.1	C
	OR		
12.	Find the transfer function of the system is shown in figure using block diagram reduction technique. 	C211.1	R
13.	Find the transfer function for the following signal flow graph using Mason's gain formulae. 	C211.1	U
	OR		
14.	Derive the transfer function of an armature controlled DC motor.	C211.1	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Obtain the expression for second order system with critically damped condition and the input is unit step.	C211.2	AZ
	OR		
16.	Derive the step response of second order system with over damped.	C211.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date/ Session	04/05/24 - FN	Marks	50
Course code	EE3403	Course Title	Measurements and Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV/A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Specify the use of copper shading bands. Where is it placed in the Energy meter?	C212.3	R
2.	Distinguish between gravity control and spring control.	C212.3	U
3.	List out the various causes which incurs errors in a Dynamometer Wattmeter.	C212.3	R
4.	Define transformation ratio of an instrument transformer.	C212.3	R
5.	What is loading effect?	C212.3	R
6.	Define damping torque.	C212.4	U
7.	What is creeping?	C212.4	U
8.	What is electromagnetic interference?	C212.4	R
9.	List out the uses and advantages of bridge circuits.	C212.4	U
10.	Write the balancing equation for Wheatstone bridge.	C212.4	U

Part – B

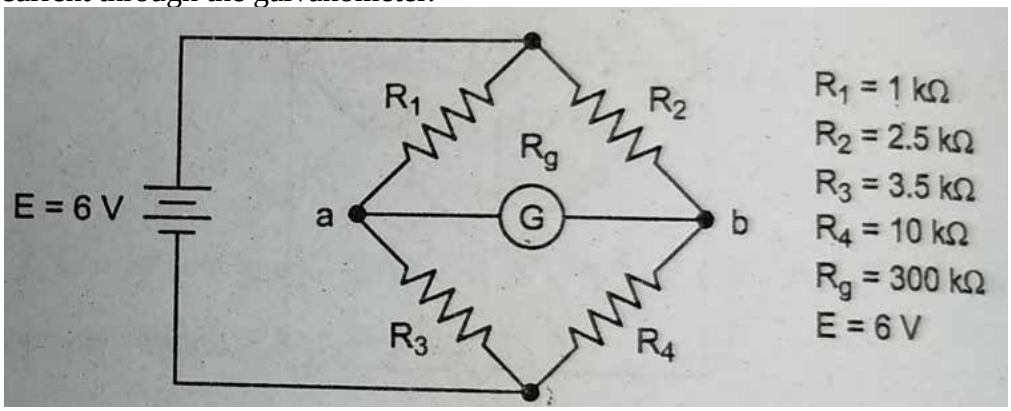
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail about the construction and working of a Induction type Wattmeter with a necessary diagram.	C212.3	U
	OR		
12.	Explain in detail about the construction and working of a Dynamometer type Wattmeter with a necessary diagram.	C212.3	U
13.	With the circuit and phasor diagram, explain the working of Single phase energy meter and derive its torque equation.	C212.3	U
	OR		
14.	Describe the step by process involved in determination of B-H curve and hysteresis loop.	C212.3	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail about the working of Kelvin's bridge.	C212.4	U
	OR		

16.	An unbalanced Wheatstone bridge is given below in figure. Calculate the current through the galvanometer. 	C212.4	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date / Session	02.05.2024/FN	Marks	50
Course code	EI 3451	Course Title	Industrial Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is Positive Temperature Coefficient	C210.2	R
2.	Give the formula for calculating the change in resistance in Thermistor	C210.2	R
3.	Define Seebeck Effect	C210.2	R
4.	What do you infer from Law of Intermediate Metals	C210.2	U
5.	Define Absolute Pressure & Atmospheric Pressure	C210.2	R
6.	Explain on the Principle behind the working of Bourdon Tube	C210.2	U
7.	Define Volumetric Flow Rate and mention any 2 unit of measurement of flow rate	C210.3	R
8.	State Bernoulli's Theorem	C210.3	R
9.	Define Laminar Flow	C210.3	R
10.	Where do we use Eccentric Orifice Plates for flow measurement	C210.3	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With a neat sketch, explain about any two types of Cold Junction Compensation techniques for thermocouple	C210.2	R
	OR		
12.	Explain in detail the working and construction of Radiation Pyrometers with a neat diagram	C210.2	R
13.	Explain the working of Spiral Bourdon Tube and U-Tube Manometer with a neat diagram	C210.2	R
	OR		
14.	With a neat sketch, explain in detail on how Bellows are used to measure Differential Pressure	C210.2	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With a neat sketch, explain the working of Concentric and Segmental Orifice Plate and highlight on their applications	C210.3	R
	OR		
16.	Define the following terminologies involved in flow measurement 1. Velocity Head 2. Pressure Head 3. Reynold's Number 4. Flow Co-efficient 5. Discharge Co-effecient	C210.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman/AP-ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date / Session	07.05.2024/FN	Marks	50
Course code	IC3401	Course Title	Modern Electronic Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023-24 Even	
Year	II	Semester/ Section	IV/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Explain the function of GPIB.	C212.2	R
2.	What is the function of REN in a GPIB?	C212.2	R
3.	What are recursive filters?	C212.2	R
4.	How many pins are there in a standard IEEE-488 bus? Among which how many data lines are there?	C212.2	R
5.	List any four methods of measuring linear displacement.	C212.3	R
6.	What is piezoelectric effect?	C212.3	R
7.	Define Hall effect.	C212.3	R
8.	What are the advantages of iron cored coils over air cored coils in variable inductance transducers?	C212.3	A
9.	Draw the diagram of RVDT with differential output.	C212.3	R
10.	Mention the advantages of DC tachometer generators in the measurement of angular velocity.	C212.3	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Give a detailed explanation of IEEE 488 with a neat PIN diagram.	C212.2	R
	OR		
12.	Explain in detail the working any one of the Digital Filters with appropriate diagram and derivation.	C212.2	R
13.	Explain how a Capacitive Transducer is used to measure linear displacement (both horizontal and vertical displacement) with neat diagram and equations.	C212.3	R
	OR		
14.	Discuss in detail how different types of electromagnetic transducers are used in measuring linear velocity.	C212.3	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	How angular displacement is measured with synchros? Explain with neat diagram and necessary equations.	C212.3	R
	OR		
16.	Explain with neat diagrams and equations the different methods of measuring fluid flow.	C212.3	R

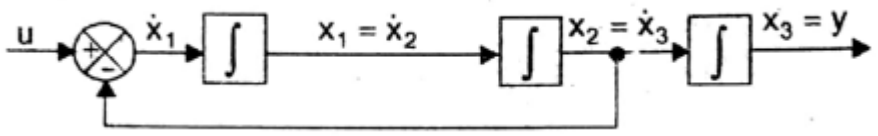
Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: R.Satheesh, AP-ICE.

Saranathan College of Engineering, Tiruchirapalli

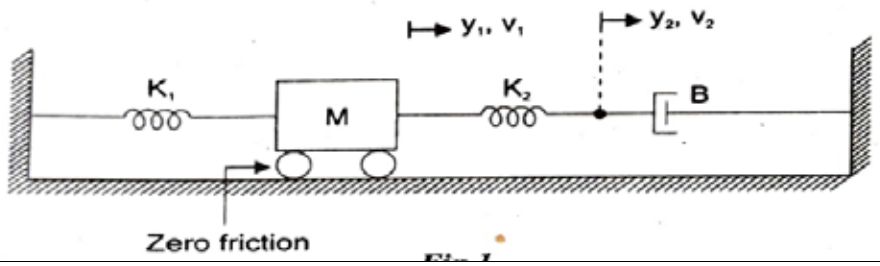
Internal Assessment Test - II			Date / Session	06.05.2024/FN	Marks	50
Course code	IC3451	Course Title	Automatic Control Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List the time domain specifications.	C211.2	U
2.	Derive the expression for rise time.	C211.2	AZ
3.	A unity feedback system has a open loop transfer function of $G(s)=\frac{20(s+5)}{s^2(s+0.1)(s+3)}$. Determine e_{ss} for parabolic input.	C211.2	A
4.	What is meant by steady state error?	C211.2	C
5.	Why derivative control is not used in control systems?	C211.2	A
6.	Draw the block diagram representation of a state model.	C211.6	R
7.	Differentiate transfer function and state space model.	C211.6	U
8.	Determine the state model of the system represented by the block diagram. 	C211.6	E
9.	Define controllability.	C211.6	C
10.	Write the properties of state transition matrix.	C211.6	R

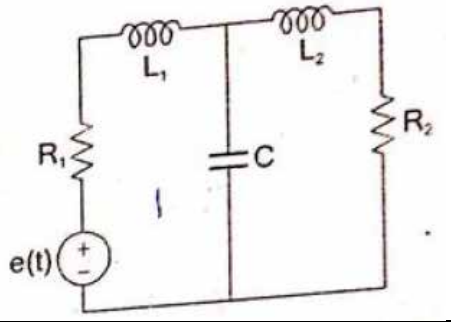
Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	A unity feedback system is characterized by an open loop transfer function $G(s)=\frac{10}{s(s+2)}$. Determine time domain specifications.	C211.2	AZ
	OR		
12.	A unity feedback system has the forward transfer function $G(s)=\frac{K_1(2s+1)}{s(5s+1)(1+s)^2}$. The input r(t)=1+6t is applied to the systems. Determine the value of K_1 if the steady state error is to be less than 0.1.	C211.2	A
13.	Find the transfer function for the state model given as $\begin{bmatrix}\dot{x}_1\\ \dot{x}_2\\ \dot{x}_3\end{bmatrix}=\begin{bmatrix}-1 & 1 & 0\\ 0 & -1 & 1\\ 0 & 0 & 2\end{bmatrix}\begin{bmatrix}x_1\\ x_2\\ x_3\end{bmatrix}+\begin{bmatrix}0\\ 0\\ 1\end{bmatrix}[u] \quad Y=[1 \quad 0 \quad 0]\begin{bmatrix}x_1\\ x_2\\ x_3\end{bmatrix}$	C211.5	U
	OR		

14.	Obtain the state model of the mechanical system shown in figure.  	C211.5	AZ

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	a) Obtain the state model of the system whose transfer function is $\frac{Y(s)}{U(s)} = \frac{10}{s^3 + 4s^2 + 2s + 1}$ b) Obtain the state model of the system shown in figure.  	C211.6	C
	OR		
16.	Determine the a) controllability of the system b) observability of the system $\begin{bmatrix} \dot{x}_1 \\ \dot{x}_2 \\ \dot{x}_3 \end{bmatrix} = \begin{bmatrix} 0 & 0 & 1 \\ -2 & -3 & 0 \\ 0 & 2 & -3 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} + \begin{bmatrix} 0 \\ 2 \\ 0 \end{bmatrix} u$ and $y = \begin{bmatrix} 1 & 0 & 0 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix}$	C211.6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirappalli

Internal Assessment Test – III			Date/ Session	06/06/24 - FN	Marks	50
Course code	EE3403	Course Title	Measurements and Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/ Section	IV/A	Department	EEE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Differentiate the sensor and the transducer.	C212.5	R
2.	Define Gauge factor of a strain gauge.	C212.5	U
3.	Write a short note on thermocouple.	C212.5	R
4.	What is piezoelectric effect? How is this concept used in transducer?	C212.5	R
5.	List down any four applications of smart sensors.	C212.5	R
6.	Draw the fundamental block diagram of PLC.	C212.6	U
7.	Write a shot note on Virtual Instrumentation.	C212.6	U
8.	List down the instrument standards.	C212.6	R
9.	Bring down the few basic components of data logger.	C212.6	U
10.	What is sampling?	C212.6	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail about the working principle and characteristics of LVDT with a necessary diagram. Give Advantages, disadvantages and applications of LVDT.	C212.5	U
	OR		
12.	Elucidate the construction and working of different types of Digital transducers.	C212.5	U
13.	Elaborate the types of resistive and inductive transducer used for measuring pressure.	C212.5	U
	OR		
14.	Write a brief note about PLC programming. Illustrate the operation of Logic function in PLC.	C212.5	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain the working of D/A converter with a neat diagram.	C212.6	U
	OR		
16.	What is a Data logger? What are its components? What are the functions of a data logger? Explain in detail about how it operates.	C212.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date / Session	05.06.2024 / FN	Marks	50
Course code	EI 3451	Course Title	Industrial Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Explain the principle of Vortex Shedding Flow Meter	C210.4	R
2.	Explain Doppler Effect	C210.4	R
3.	Elaborate on the principle behind Electromagnetic Flow Meter	C210.4	U
4.	Give the principle behind the working of Laser Doppler Anemometer	C210.4	R
5.	Draw the schematic of Swirl Meter	C210.4	R
6.	What are the differences between a regular Sight Glass & High-Pressure Sight Glass	C210.5	R
7.	Draw the schematic of Diaphragm level Indicator	C210.5	R
8.	Why is it very crucial to maintain level in Boiler Drum	C210.5	U
9.	When do we use Side Mounted Microwave Level Detectors and when do we use Top Mounted Microwave Level Detectors – Justify your answer	C210.5	U
10.	Define Smart Transmitter	C210.5	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With relevant equation and diagram, explain the working of target flow meter and mention its advantages & dis-advantages	C210.4	R, U
	OR		
12.	Sketch the constructional details of a Vortex Flow Meter and elaborate on its working, advantages, and limitations	C210.4	R, U
13.	What is Weir? Explain V Notch Weir with a neat diagram. Mention the formula for calculating the total weir discharge in V Notch, Rectangular & Trapezoidal Weir	C210.4	R
	OR		
14.	Describe with neat diagram the construction & working of Ultrasonic Flow Meter, and mention its advantages and limitations	C210.4	R, U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Draw the schematic of Differential Pressure Method of Level Measurement and explain its operation	C210.5	R
	OR		
16.	With a neat sketch, explain the individual sections of Smart Transmitter and justify on why it is better than traditional transmitters	C210.5	R, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R.Seetharaman / AP - ICE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – III			Date / Session	11.06.2024/FN	Marks	50
Course code	IC3401	Course Title	Modern Electronic Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023-24 Even	
Year	II	Semester/ Section	IV/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is ISA 100.11 a?	C212.4	R
2.	Define MEM capacitive pressure sensors.	C212.4	R
3.	Summarize the cantilever MEMS applications.	C212.4	R
4.	Define precession in gyroscope.	C212.4	R
5.	Define Coriolis effect.	C212.4	R
6.	What is ranging system?	C212.5	R
7.	Mention the reasons for using non-invasive glucometer over invasive type.	C212.5	U
8.	Mention any four types of velocimeter.	C212.5	R
9.	How can the hidden objects be detected?	C212.5	R
10.	What is the role of sphygmomanometer?	C212.5	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With the help of neat diagram explain in detail the MEM Accelerometer.	C212.4	R
	OR		
12.	Describe with necessary diagrams the MEM Pressure Sensors.	C212.4	R
13.	How the MEM cantilever deflection is sensed with Piezoresistors? Explain in detail.	C212.4	R
	OR		
14.	Explain in detail about the wireless HART with neat diagram.	C212.4	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	What is velocimeter? Explain in detail about its types, applications, advantages and disadvantages	C212.5	R
	OR		
16.	Design a wireless patient monitoring system.	C212.5	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: R.Satheesh, AP-ICE.

Saranathan College of Engineering, Tiruchirapalli

Internal Assessment Test - III			Date / Session	10.06.2024/FN	Marks	50
Course code	IC3451	Course Title	Automatic Control Systems			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	II	Semester/Section	IV	Department	ICE	

Part – A (Answer all the questions 7 x 2 = 14 marks)

Q. No.	Questions	CO	Skills
1.	Write the frequency domain specifications.	C211.3	AZ
2.	What are the advantages of bode plot.	C211.3	A
3.	What is polar plot?	C211.3	R
4.	What is compensator? List the types	C211.3	A
5.	Write the formulae for centroid and asymptote.	C211.4	C
6.	State Routh Hurwitz criterion.	C211.4	A
7.	Determine the range of K for stability of unity feedback system whose open loop transfer function is G(s) = K / s (s+1)(s+2)	C211.4	U

Part – B (Answer all the questions 2 x 12 = 24 marks)

Q. No.	Questions	CO	Skills
11.	Plot the bode diagram for the following transfer function $G(s)=\frac{10}{s(1+0.4s)(1+0.1s)}$. Obtain gain and phase cross over frequencies.	C211.3	U
	OR		
12.	Sketch the Bode plot for the following transfer function and determine the system gain K for the gain cross over frequency to be 5 rad/sec $G(s)=\frac{Ks^2}{(1+0.2s)(1+0.02s)}$.	C211.3	AZ
13.	The open loop transfer function of a unity feedback system is given by $G(s)=\frac{1}{s(1+s)(1+2s)}$. Sketch the polar plot and determine the gain margin and phase margin.	C211.3	R
	OR		
14.	Consider a unity feedback system having an open loop transfer function $G(s)=\frac{K}{s(1+0.5s)(1+4s)}$. Sketch the polar plot and determine the value of K so that i) Gain margin is 20 db and ii) Phase margin is 30 degree.	C211.3	AZ

Part – C (Answer all the questions 1 x 12 = 12 marks)

Q. No.	Questions	CO	Skills
15.	A unity feedback control system has an open loop transfer function $G(s)=\frac{K}{s(s^2+4s+13)}$. Sketch the root locus.	C211.4	C
	OR		
16.	a) The characteristic polynomial of a system is $s^7+9s^6+24s^5+24s^4+24s^3+24s^2+23s+15=0$. Determine the location of roots on s-plane and hence the stability of the system. b) Using Routh stability criterion, determine the stability of a system and number of roots in the right half of s-plane in the following characteristic equations: $s^5+4s^4+8s^3+8s^2+7s+4 = 0$.	C211.4	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question. Faculty in-charge: A.Gopikrishnan, AP/ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - I			Date / Session	26.02.2024/FN	Marks	50
Course code	EI3651	Course Title	Industrial Automation System			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Mention the advantages of automation	C309.1	C
2.	Write about the requirement of automation systems	C309.1	A
3.	What is the difference between a PLC and a computer?	C309.1	R
4.	List the applications of SCADA.	C309.1	C
5.	Point out the features of Modbus communications.	C309.1	AZ
6.	Write the types of Profibus.	C309.1	E
7.	Classify the different temperature measurement types using change in physical properties.	C309.2	A
8.	Illustrate the factors to be considered while selecting a flow meter.	C309.2	R
9.	Name the different types of level measurement.	C309.2	AZU
10.	Define piezoelectric effect.	C309.2	u

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	What is automation? Explain briefly about the architecture of industrial automation with a neat diagram.	C309.1	AZ
	OR		
12.	With a neat diagram explain the principle of operation PLC.	C309.1	U
13.	Describe about the components of SCADA with a neat diagram.	C309.1	R
	OR		
14.	Discus about the MODBUS message protocol with neat diagram.	C309.1	C

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Describe the pressure measurement process using the following (i) Bourdon tubes (ii) Bellows	C309.2	R
	OR		
16.	Briefly describe in detail about displacement transducer with neat diagram.	C309.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – I			Date/ Session	27.02.2024/FN	Marks	50
Course code	CIC341	Course Title	Electric Vehicle Technology			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Illustrate about the Electric Vehicle.	C314PE7V43.1	R
2.	Define power train.	C314PE7V43.1	U
3.	Compare Electric Vehicle and Hybrid Electric Vehicle.	C314PE7V43.1	U
4.	What is regenerative braking?	C314PE7V43.1	R
5.	List the components of electric vehicle.	C314PE7V43.1	R
6.	Write the function of gears and clutches.	C314PE7V43.1	U
7.	Mention the advantages of an EV system.	C314PE7V43.1	R
8.	Draw the power transmission path in an Electric vehicle.	C314PE7V43.1	R
9.	What is meant by aerodynamic drag force?	C314PE7V43.2	U
10.	Define tractive force.	C314PE7V43.2	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain historical background of EV and HEV technology involvement.	C314PE7V43.1	U
	OR		
12.	Discuss the working of Electric vehicle with neat sketch.	C314PE7V43.1	U
13.	Demonstrate the configuration of series & parallel Hybrid Electric drive train.	C314PE7V43.1	U
	OR		
14.	Explain the working of series-parallel & series-parallel (2X2) Hybrid Electric Vehicle drive with block diagram of different component.	C314PE7V43.1	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain about the well to wheel analysis with a neat sketch.	C314PE7V43.2	U
	OR		
16.	Explain about the Roadway fundamentals with a necessary diagram.	C314PE7V43.2	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	28.02.2024/FN	Marks	50
Course code	CIC343	Course Title	INSTRUMENTATION IN PETROCHEMICAL INDUSTRY			
Batch No.		Duration	90 mins	Academic Year	2023-2024 EVEN	
Year/	III	Semester	VI	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is Crude Oil?	C315PE8V45.1	R
2	Define separator and mention its type	C315PE8V45.1	R
3	What is permeability?	C315PE8V45.1	R
4	What is primary oil recovery?	C315PE8V45.1	R
5	Define API gravity	C315PE8V45.1	R
6	Mention the different types of crude oil based on API gravity	C315PE8V45.1	R
7	Differentiate upstream and downstream in oil and gas industry	C315PE8V45.1	R
8	What do you mean by cracking?	C315PE8V45.2	R
9	How will you reform petrochemical products?	C315PE8V45.2	R
10	What is mathematical modeling?	C315PE8V45.2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain in detail about any two types of separators with a nest diagram.	C315PE8V45.1	R
	OR		
12	Explain in detail about different types of oil recovery methods.	C315PE8V45.1	R
13	Write note on thermal cracking and catalytic cracking.	C315PE8V45.2	R
	OR		
14	Explain in detail about distillation column.	C315PE8V45.2	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Discuss in detail about Hazard Identification and Risk Assessment	C315PE8V45.1	R, U
	OR		
16	List out the various hazards unique to Oil & Gas and explain any two in details	C315PE8V45.1	R, U

Prepared by: Dr. M. Shanmugavalli/Professor/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – I			Date / Session	29.02.2024/FN	Marks	50
Course code	CIC340	Course Title	Analytical Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Explain on the uniqueness of Michelson Interferometer	C1	U
2.	State Beer-Lambert law	C1	R
3.	Define Molecular Vibration and explain why molecular vibration is important in IR Spectroscopy	C1	R, U
4.	Explain the working of Phototubes	C1	E
5.	Differentiate Line Source and Continuum Source Radiation	C1	R
6.	Define Desolvation and Vaporization	C1	R
7.	What is Stationary phase and Mobile phase in Chromatography	C2	R
8.	Differentiate Eluent, Eluate and Elution	C2	U
9.	State the principle of Chromatography	C2	R
10.	Explain about the Chromatographic behavior of Solutes	C2	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Discuss on the principle behind the working of Spectrophotometry and explain in detail the FTIR Spectrophotometer with neat diagram and list its advantages	C1	R
	OR		
12.	Discuss in detail the construction and working of a Double Beam UV-Visible Spectroscopy with neat diagram	C1	R
13.	Explain in detail on the construction and working of Atomic Absorption Spectrophotometry	C1	R
	OR		
14.	Explain in detail about the working and difference between Flame Atomizer and Electro Thermal Atomizer	C1	R, U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With neat diagram, explain about the Column Chromatography principle, column characteristics and criteria for Adsorbent and Mobile Phase	C2	R
	OR		
16.	a. Define Retention Time, Dead Time, Capacity Factor, separation factor and Phase Ratio (5 marks) b. Classify Chromatography based on interaction of solute to stationary phase, bed shape, physical state of mobile phase (5 marks)	C2	R, U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

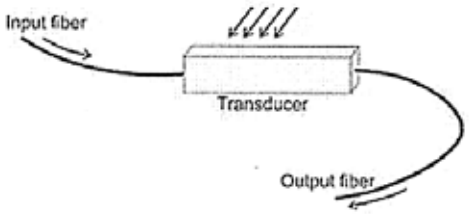
Faculty in-charge: R. Seetharaman

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date / Session	05.03.2024 / FN	Marks	50
Course code	CIC339	Course Title	Fiber Optics Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI / A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Light travels from air into an optical fiber with an index of refraction of 1.44. If the angle of incidence on the end of the fiber is 22°, what is the angle of refraction inside the fiber?	C312PE5V41.1	A
2.	Differentiate Single mode fiber from multimode fibers	C312PE5V41.1	U
3.	List the characteristics of optical fiber.	C312PE5V41.1	R
4.	Distinguish between intrinsic and extrinsic absorption.	C312PE5V41.1	U
5.	Define Dispersion.	C312PE5V41.1	R
6.	What is meant by cone of acceptance? Draw suitable diagram.	C312PE5V41.1	R
7.	Why do we prefer step index single mode fiber for long distance communication?	C312PE5V41.1	U
8.	Identify whether the given diagram is a representation of intrinsic or extrinsic fiber optic sensor. 	C312PE5V41.2	A
9.	Define Quadratic Electro-optic effect.	C312PE5V41.2	R
10.	Write the expression of fiber attenuation at a given wavelength 'λ'. What is another name of both scatter method?	C312PE5V41.2	U& R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	With a neat diagram, explain how total internal reflection is achieved in optical fibers? Also prove that the Numerical Aperture is a function of difference between the refractive indices of core and cladding.	C312PE5V41.1	A
	OR		
12.	Describe the different types of fiber and their properties with neat sketches.	C312PE5V41.1	R
13.	Discuss about the various sources of fiber losses in fiber optic transmission characteristics	C312PE5V41.1	R
	OR		
14.	Discuss the principle of splicing technique and illustrate the following: Mechanical splicing and Fusion splicing.	C312PE5V41.1	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Elaborate about the construction and operation of optical domain reflectometer.	C312PE5V41.2	R
	OR		
16.	Explain in detail how attenuation in optical fibers are measured by cut back method with suitable diagram.	C312PE5V41.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – I			Date / Session	04/03/2024	Marks	50
Course code	EI 3652	Course Title	INTRODUCTION TO INDUSTRAIL PROCESS MEASUREMENT AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define Unit operations	C310.1	U
2.	Give few examples of unit operations, based on Liquids	C310.1	A
3.	List a few sensors related to measurement of parameters - solids	C310.1	A
4.	Mention a few limitations of solid transport	C310.1	R
5.	Differentiate the key, differences in transportation of Liquids and Gases	C310.1	U
6.	What is the significance of sedimentation in a distillation column	C310.1	U
7.	Mention the safety aspects for consideration in an Evaporator	C310.1	R
8.	What major control strategy is deployed for Distillation column	C310.2	A
9.	What is the normal temperature maintained in Refrigeration units	C310.2	R
10.	Why lubrication is important in a refrigeration unit	C310.2	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Write short notes on i. Measurements of solid flow ii. Control of solid flow	C310.1	R
	OR		
12.	Explain in detail about the liquid transportation and it correlation with unit operations and its control	C310.1	U
13.	Explain about the Unit operations of an Evaporator in detail, having special mentions of measurement and control	C310.1	U
	OR		
14.	Describe in detail with suitable aids on measurements and controls involved in a refrigeration unit.	C310.2	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Consider extraction of gas in a petro chemical industry and how the same is transported for long distances.	C310.1	A
	OR		
16.	With, Distillation column as a reference case study, explain its significance as a typical unit operation with suitable measurements and control	C310.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: S.M.GIRI RAJKUMAR/ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - II			Date / Session	25.03.2024/FN	Marks	50
Course code	EI3651	Course Title	Industrial Automation System			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What is meant by actuation system? List the types	C309.2	R
2.	Draw the characteristics of control valve.	C309.2	C
3.	List the application of IGBT.	C309.2	A
4.	Compare AC and DC servo motors.	C309.2	C
5.	What is the role of computers in process control?	C309.3	AZ
6.	Name some functions of computer aided process control systems.	C309.3	E
7.	What is meant by MMI?	C309.3	A
8.	List the layers of OSI model architecture.	C309.3	R
9.	Mention the different categories of transmission techniques.	C309.3	U
10.	Differentiate TDM and FDM.	C309.3	AZ

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Examine the structure and different modes of operation with the characteristics of TRIAC with a neat diagram.	C309.2	AZ
	OR		
12.	Draw and explain the characteristics of power MOSFET.	C309.2	U
13.	Illustrate the elements of computer-aided measurements and control with an example.	C309.3	R
	OR		
14.	With neat sketch, explain the organization of general purpose computer with various peripheral devices	C309.3	E

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain with a neat sketch the construction and working of (i) Analog to digital conversion system (ADC). (ii) Digital to analog conversion system (DAC).	C309.3	U
	OR		
16.	Explain about the role of IOT in process industries with an example.	C309.3	C

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering
Tiruchirapalli

Internal Assessment Test – II			Date/ Session	26.03.2024/FN	Marks	50
Course code	CIC341	Course Title	Electric Vehicle Technology			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define gradability.	C314PE7V43.2	R
2.	What is Rolling resistance?	C314PE7V43.2	U
3.	Write the formula for total tractive force.	C314PE7V43.2	U
4.	Mention the assumptions considered for maximum gradability.	C314PE7V43.2	R
5.	Write about the different arrangements for EV transmission.	C314PE7V43.2	R
6.	List out the battery parameters.	C314PE7V43.3	U
7.	What are the types of batteries in electric vehicle and hybrid electric vehicle.	C314PE7V43.3	R
8.	Mention the advantages of Fuel cell EVs.	C314PE7V43.3	R
9.	Write a short note on Zinc air battery.	C314PE7V43.3	U
10.	Write the equation for the reaction inside NiMH Battery.	C314PE7V43.3	U

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	An Electric Vehicle has the following parameter values: $m = 800\,\text{kg}$, $C_D = 0.2$, $A_f = 2.2\,\text{m}^2$, $C_0 = 0.008$, $C_1 = 1 \times 0.6 \times 10^{-6}\,\text{s}^2/\text{m}^2$, Also, take density of air $\rho = 1.18\,\text{kg/m}^3$, and acceleration due to gravity $g = 9.81\,\text{m/s}^2$, The vehicle is on level road. It accelerates from 0 to 65 mi/h in 10 s such that its velocity profile is given by $v(t) = 0.29055t^2$ for $0 \le t \le 10\,\text{s}$. (a) Calculate $F_{TR}(t)$ for $0 \le t \le 10\,\text{s}$. (b) Calculate $P_{TR}(t)$ for $0 \le t \le 10\,\text{s}$. (c) Calculate the energy loss due to nonconservative forces E_{loss}. (d) Calculate Δe_{TR}.	C314PE7V43.2	Az
	OR		
12.	Explain in detail about the EV Recharging and Refuelling systems.	C314PE7V43.2	U
13.	List out the merits and demerits of the typical lead acid battery. And explain the working principle of a Li-ion battery with a neat sketch and necessary equation involved.	C314PE7V43.3	U
	OR		
14.	With a neat sketch, discuss the chemistry and reaction of Nickel-based batteries in energy storage system?	C314PE7V43.3	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain about the working principle and benefits of Ultra capacitor energy storage with a necessary diagram.	C314PE7V43.3	U
	OR		
16.	What is Battery Management System? Explain its function with a necessary diagram.	C314PE7V43.3	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date/ Session	27.03.24/ FN	Marks	50
Course code	CIC343	**Course Title**	INSTRUMENTATION IN PETROCHEMICAL INDUSTRY			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024 EVEN	
Year/	III	**Semester/ Section**	VI	**Department**	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	
1	Define Dew Point and Bubble Point in a distillation column	C315PE8V45.3	R
2	What is the octane number and which process is used to increase the octane number of a compound?	C315PE8V45.3	R, U
3	Differentiate Feedback, Feedforward, and Ratio Control	C315PE8V45.3	R
4	What are isomers? Give some examples of isomers	C315PE8V45.4	R
5	What is meant by catalyst poisoning?	C315PE8V45.4	R
6	What are the derivatives of crude streams?	C315PE8V45.4	R
7	Write down the chemical reaction of Acetylene production using the Chemical Reaction Process and Thermal Cracking Process	C315PE8V45.4	U
8	Why do we derive Vinyl Chloride from Acetylene when it can be derived from Ethylene	C315PE8V45.4	R
9	What is Dowtherm?	C315PE8V45.4	R
10	Give the reaction that yields Formaldehyde from the process of oxidation and dehydrogenation.	C315PE8V45.4	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain the feedforward, Feedback, cascade control, inferential, and adaptive control of the distillation column.	C315PE8V45.4	R
	OR		
12	Explain the Multivariable control of the distillation column	C315PE8V45.4	R
13	i.Derive the Mathematical model of the batch distillation column. ii. Write short notes on Isomerisation.	C315PE8V45.4	R
	OR		

14	i. Write about Methane and its derivatives ii. Explain the Methane production scheme	C315PE8V45.4	AZ, E

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	Explain in detail the process of Ethanolamine with a neat diagram	C315PE8V45.3	R
	OR		
16	a. Explain in detail the production of Acetylene by chemical reaction process with a neat diagram. b. What are the applications of MTBE and HFC's	C315PE8V45.3	R

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date / Session	28/03/2024/FN	Marks	50
Course code	CIC340	**Course Title**	Analytical Instrumentation			
Batch No.		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year	III	**Semester/ Section**	VI/A	**Department**	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List out the difference between Gas Chromatography and Liquid Chromatography	C2	R
2.	Mention any 4 applications where Gas Chromatography is used	C2	R
3.	Highlight the uniqueness of HPLC	C2	U
4.	Draw the schematic of Fluorescence detectors	C2	R
5.	What does Diamagnetic & Paramagnetic mean?	C3	U
6.	Explain on the purpose of Molycon Converter in Nitrogen Dioxide gas Analyzer	C3	U
7.	Explain the working principle of IR gas Analyzer	C3	R
8.	Draw the schematic of Solid State H_2S Analyzer	C3	R
9.	What are the various methods to estimate Carbon Monoxide pollution?	C3	R
10.	Mention the reaction that takes place in the reaction cell of Nitrogen Dioxide Chemiluminescent Analyzer	C3	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the working of Paramagnetic Oxygen gas Analyzer and highlight on its applications	C3	R
	OR		
12.	With neat diagram explain in detail about the working of IR analyzer when a Single Beam Configuration is employed	C3	R
13.	Explain in detail on the analysis of H_2S by Electrochemical cells and Solid-State Sensor with neat diagram	C3	R
	OR		
14.	With a neat diagram, explain the working and construction of Non-Dispersive IR analyzer for analyzing air pollution due to Carbon Monoxide	C3	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With neat diagrams, explain in detail about the working of any 3 detectors used in Gas Chromatography	C2	R
	OR		
16.	With a neat diagram, explain the working and construction of HPLC	C2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman / AP-ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date / Session	01/04/2024	Marks	50
Course code	EI 3652	Course Title	INTRODUCTION TO INDUSTRAIL PROCESS MEASUREMENT AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	State the need for CSTRs	C310.2	U
2.	Mention the types of reactors	C310.2	R
3.	What is the indispensable factor in any chemical reactor	C310.2	A
4.	Name a few global level Petro Chemical industries	C310.3	A
5.	Mention few products from Petro Chemical industries, not related to transport	C310.3	R
6.	Why is it necessary to separate oil and gas in Petro Chemical industries	C310.3	U
7.	Brief on wet gas processing	C310.3	U
8.	What is the significance of Fractionation column	C310.3	R
9.	Brief on Catalytic units	C310.3	R
10.	What are the manipulated variables involved in control of catalytic units	C310.3	U

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Write short notes on i. Reactor measurement and operations ii. Reactor controls	C310.4	A
	OR		
12.	In detail explain with suitable schematics the process flow diagram of a typical petro chemical industry, covering as many details as possible in brief.	C310.3	U
13.	With suitable aids, explain about the oil and gas separation process with appropriate measurement and control schemes	C310.4	A
	OR		
14.	Write short notes on i. Catalytic cracking unit ii. Catalytic reforming unit	C310.2	U

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Consider a case study for improving the efficiency of a chemical reactor in process industry	C310.3	AZ
	OR		
16.	Reference to safety as the bench mark, consider a suitable case study in a petrochemical industry to prioritize safety aspects.	C310.3	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: S.M.GIRI RAJKUMAR/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date / Session	02.04.2024 / FN	Marks	50
Course code	CIC339	Course Title	Fiber Optics Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI / A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Classify optical modulators.	C312PE5V41-E31.2	R
2.	What is the basic principle of electro optic modulator?	C312PE5V41-E31.2	R
3.	What are Moire fringes?	C312PE5V41-E31.2	R
4.	Describe Pockels effect.	C312PE5V41-E31.2	U
5.	How four level laser is better than three level laser?	C312PE5V41-E31.3	AZ
6.	Examine why optical pumping is preferred in lasers?	C312PE5V41-E31.3	R
7.	Define the term population inversion.	C312PE5V41-E31.3	R
8.	State the principle of Q switching.	C312PE5V41-E31.3	R
9.	When is the laser said to be mode locked?	C312PE5V41-E31.3	U
10.	Mention the different techniques for achieving pulsed LASER output.	C312PE5V41-E31.3	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain how optical fibers can be used to measure temperature, pressure and liquid level in industries	C312PE5V41-E31.2	A
	OR		
12.	How fiber optic sensors are used in measurement of current and voltage?	C312PE5V41-E31.2	A
13.	Illustrate with energy level diagrams the three level and four level lasers.	C312PE5V41-E31.3	R
	OR		
14.	Sketch the constructional details of a semiconductor laser and explain.	C312PE5V41-E31.3	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Write short notes on the following: (i) Mode locking, (ii) Q switching.	C312PE5V41-E31.3	R
	OR		
16.	Discuss about construction and working of Ruby and Nd-YAG lasers	C312PE5V41-E31.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: R.Satheesh – AP, ICE

Saranathan College of Engineering, Tiruchirappalli

Internal Assessment Test - III			Date / Session	22.04.2024/FN	Marks	50
Course code	EI3651	Course Title	Industrial Automation System			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	List any four PLC input devices	C309.4	U
2.	Write the operation sequence of PLC.	C309.4	C
3.	Draw the PLC ladder diagram for AND gate.	C309.4	A
4.	What is sequential flow chart?	C309.4	U
5.	List the communication protocols used in PLC.	C309.4	AZ
6.	Point out the applications of PLC in process industries.	C309.4	E
7.	What is meant by DCS?	C309.5	A
8.	Why DCS is necessary for industrial automation?	C309.5	R
9.	List out the architectural parameters in LCU.	C309.5	U
10.	Mention the communication facilities in DCS.	C309.5	A

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Design a PLC program to control one way traffic lights for a transition from red to green to amber.	C309.4	AZ
	OR		
12.	Discuss the basic function of analog I/O modules involved in PLC.	C309.4	U
13.	Develop a PLC program to count the number of trucks entering and leaving a parking garage and turn ON the pilot light once the garage is full.	C309.4	E
	OR		
14.	Explain about the PLC installation and PLC selection.	C309.4	R

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain with a neat sketch the construction and working of local control unit.	C309.5	AZ
	OR		
16.	Explain about the architecture of DCS with a neat diagram.	C309.5	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).
Skill need to be mentioned against each question

Faculty in-charge: Dr.A.Gopikrishnan, AP/ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date/ Session	23.04.2024/FN	Marks	50
Course code	CIC341	Course Title	Electric Vehicle Technology			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	How the characteristic of DC series motor differs from DC shunt motor?	C314PE7V43.4	U
2.	Compare Sqiurrel cage and Slip ring Induction motor.	C314PE7V43.4	U
3.	What is the difference between 1 and 3-phase?	C314PE7V43.4	U
4.	List out the applications of DC compound motor.	C314PE7V43.4	R
5.	Draw the circuit diagram of single phase full wave bridge inverter.	C314PE7V43.5	R
6.	Draw the Torque-Speed characteristics of DC Shunt and series motor.	C314PE7V43.5	R
7.	List out the classification of Inverters.	C314PE7V43.5	R
8.	Define Harmonics.	C314PE7V43.6	R
9.	List the characteristics of DC-DC Converters.	C314PE7V43.6	U
10.	Define rectification.	C314PE7V43.6	R

Part – B
(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain the working principle of DC motor as applied in electric vehicles.	C314PE7V43.4	U
	OR		
12.	Explain the working principle of Induction motor as applied in electric vehicles	C314PE7V43.4	U
13.	Explain the working principle and control strategies of chopper.	C314PE7V43.5	U
	OR		
14.	Dissect the configuration and control of Switched reluctance motor.	C314PE7V43.5	U

Part – C
(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain about the Power split devices used in Hybrid Vehicles and its working.	C314PE7V43.6	U
	OR		
16.	Discuss about the importance of Power converters used in EVs and Future of EVs.	C314PE7V43.6	U

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: Dr.K.Gaayathry / ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date/ Session	24-04-24/FN	Marks	50
Course code	CIC343	**Course Title**	INSTRUMENTATION IN PETROCHEMICAL INDUSTRY			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2024 EVEN	
Year/	III	**Semester/ Section**	VI/A	**Department**	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	List the parameters to be measured in the refinery process	C402.4	R
2	Give the dehydrogenation reaction of styrene production, and mention the significance of superheated steam in the process	C402.4	R
3	What is BTX? where it is used?	C402.4	R
4	Express the concept in dew point	C402.4	U
5	Higher the activity of the catalyst, higher the conversion. Justify	C402.4	U
6	What is an explosion?	C402.5	R
7	Define flash point	C402.5	R
8	What do you mean by Intrinsic safety?	C402.5	R
9	Describe the methods used for classification of hazardous areas	C402.5	R
10	When will an explosion occur?	C402.5	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	a. Explain any four criteria that an instrument must satisfy in order to be used in oil and gas industry b. Explain the working of Ultrasonic Flow Meter with a neat sketch	C402.4	R
	OR		
12	a. With a neat sketch discuss the aromatics extraction process using Tetraethylene glycol b. List out the applications of aromatic hydrocarbons	C402.4	R
13	With a neat sketch explain in detail the production of PVC by ethylene	C402.4	R
	OR		
14	a. What are the different types of Polyethylene and highlight its applications. b. Explain the production of Ethylene Oxide by Direct Oxidation process with neat diagram	C402.4	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	What is ignition triangle and with a neat sketch explain the importance of Zener barrier for intrinsic safety	C402.5	R
	OR		
16	Explain in detail about the failure analysis that is carried out in Oil and Gas Industries	C402.5	R

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date / Session	25/04/2024/FN	Marks	50
Course code	CIC340	Course Title	Analytical Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	If the pH is 3.8, what is the pOH value?	C4	E
2.	List out the different types of Selective Ion Electrode used for analysis	C4	R
3.	Define temporary and Permanent Hardness of water	C4	R
4.	Define Turbidity	C4	R
5.	Give the chemical reaction that takes place in the Cathode and Anode of Dissolved Oxygen Analyzer	C4	R
6.	Highlight the difference between Reference Electrode and Indicator Electrode	C4	U
7.	What is Mass Spectrometer? And give its applications	C5	R
8.	Define Protonation and De-Protonation	C5	R
9.	Derive the expression to find out the Mass of an element	C5	U
10.	Draw the schematic of Quadrupole Mass Analyzer	C5	R

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail about the working of Liquid Membrane Electrode with neat diagram	C4	R
	OR		
12.	With a neat sketch, explain in detail about the analysis of Water Quality for the presence of bacteria's using Multiple Tube Dilution Method	C4	R
13.	Explain in detail about the working of Sodium Analyzer with a neat sketch	C4	R
	OR		
14.	With a neat diagram, explain the working of Null Detector Type Glass Electrode for pH measurement	C4	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	With a neat diagram, explain the working of Mass Spectrometer in identifying various Isotopes	C5	R
	OR		
16.	Explain the working of Time-of-Flight Mass Analyzer with a neat diagram	C5	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: R. Seetharaman / AP-ICE

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – III			Date/ Session	29/04/24 - FN	Marks	50
Course code	EI3652	Course Title	INTRODUCTION TO INDUSTRIAL PROCESS MEASUREMENT AND CONTROL			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI/A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	Define the need for Coal Pulverizor	C310.5	U
2.	Mention the vital parameters involved in Boiler Drum	C310.5	R
3.	Brief about the Deaerator	C310.5	R
4.	What is the significance of Super Heater	C310.5	U
5.	What is the average efficiency of Boilers used in India	C310.5	AZ
6.	What is the raw material used in pulp plant	C310.6	A
7.	State the role of a digester in a pulp plant	C310.6	U
8.	Mention the limitation of a continuous sulphate digester	C310.6	A
9.	Mention the raw material used in paper manufacturing	C310.6	A
10.	How does a power flickering influence the operation of paper industry	C310.6	AZ

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	Explain in detail with suitable aids about the Turbines in Thermal power plant , with emphasis on measurement and control	C310.5	U
	OR		
12.	Write short notes on i. Coal Pulverizor ii. Deaerator	C310.5	R
13.	Explain in detail with suitable aids about the Pulp plant, with emphasis on measurement and control	C310.6	U
	OR		
14.	Write short notes on i. Batch Digester ii. Sulphate digester	C310.6	R

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Consider a case study to improve the efficiency of a coal fired thermal power plant. Explain with suitable aids	C310.5	AZ
	OR		
16.	For a paper manufacturing Industry, consider two maintenance issue, and explain about the sorting out of control related issues of the plant.	C310.6	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Faculty in-charge: S.M.Giri Rajkumar

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - III			Date / Session	30.04.2024 / FN	Marks	50
Course code	CIC339	Course Title	Fiber Optics Instrumentation			
Batch No.		Duration	90 mins	Academic Year	2023 - 2024	
Year	III	Semester/ Section	VI / A	Department	ICE	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1.	What are the uses of shielding gas during material processing by lasers?	C312PE5V41-E31.4	U
2.	What are the two modes of laser welding process?	C312PE5V41-E31.4	R
3.	What is Doppler effect?	C312PE5V41-E31.4	R
4.	Mention the applications of LIDAR.	C312PE5V41-E31.4	R
5.	What are the advantages of laser cutting?	C312PE5V41-E31.4	R
6.	What are the industrial application of lasers?	C312PE5V41-E31.5	A
7.	What is holography?	C312PE5V41-E31.5	R
8.	What are the conditions for recording a hologram?	C312PE5V41-E31.5	A
9.	Distinguish between hologram and photographic film?	C312PE5V41-E31.5	R
10.	What are the different laser interactions with tissues?	C312PE5V41-E31.6	A

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11.	How laser is used to measure distance and length?	C312PE5V41-E31.4	A
	OR		
12.	Explain in detail the measurement of velocity using laser.	C312PE5V41-E31.4	R
13.	Explain the application of laser in the fields of cutting and welding.	C312PE5V41-E31.4	R
	OR		
14.	How laser can be used for melting in material processing?	C312PE5V41-E31.4	A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15.	Explain in detail the hologram recording and reconstruction.	C312PE5V41-E31.5	R
	OR		
16.	Explain the holographic interferometry and mention its applications.	C312PE5V41-E31.5	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C).

Faculty in-charge: R.Satheesh – AP, ICE

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	JELCY CHRISTILA P			Year / Semester / Section	II / IV / A
Batch No.	255008	Date / Session	08/04/24 - FN	Department	ICE
Course Code	IC3401	Course Title	Modern electronic Instrumentation		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 14
Name and Signature of the Invigilator with date	J. Findhumathy				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	4			4
2	✓	0	12					
3	✓	2	13	✓	5			5
4	✓	1	14					
5	✓	1	15					
6	✓	1	16	✓	10			10
7							Total	19
8								
9	✓	1						
10	✓	1						
Total		09						

28/50

Grand Total

R. SATHEESH

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	64	36					100
Marks Obtained	32	24					56

QAC Audit - Remarks

Dr. M. MAKIMUGHU

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	AADHIL MOHAMED. I			Year / Semester / Section	II / III / "A"
Batch No.	255001	Date / Session	31/10/2023 - FN	Department	ICE
Course Code	EE3352	Course Title	DIGITAL SYSTEM DESIGN AND APPLICATIONS		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	Dr. Per 31/10				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	3		3	6
2	✓	2	12					
3	✓	0	13	✓	8			8
4	✓	2	14					
5	✓	2	15					—
6	✓	0	16					
7	✓	0					Total	14
8		—						
9		—						
10		—						
Total		08	Grand Total		22/50 44%		Dr. K. Jayathy 1/11/23	Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	34/68	16/32					50/100
Marks Obtained	22/44	0/0					22/44

QAC Audit - Remarks

NIL

S. Hamith 1/12/23

S. Hariprasath.

Name and Signature of the QAC member

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '3' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'ICE' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:ICE Semester:3 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CS3353-senthilbalaji-it				EI3351-seetharaman-ice				EI3352-gaayathry-ice				EI3353-balasubramanian-eee				EI3354-shanmugavalli-ice				MA3353-neelambari-mat			
							A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4
1	813822112001	255001	AADHIL MOHAMED. I	GQ	1	*	50	70	85		54	30	24	42	44	58	52	50	54	66	84	58	50	44	A	53	30	20	18	30
2	813822112002	255002	ADITHYA. G	GQ	NIL	8.9375	51	74	77		62	50	50	57	92	90	86	84	94	92	98	95	82	82	86	60	70	56	12	50
3	813822112003	255003	AMRITHA. J	MQ	NIL	7.6198	62	64	83		66	64	76	A	72	80	70	63	78	80	90	81	74	54	60	55	52	50	10	31
4	813822112004	255004	BHUVANAESWARI. M	MQ	NIL	6.9896	56	80	86		46	62	44	38	60	68	46	63	44	66	88	92	54	66	52	65	70	50	24	59
5	813822112005	255005	DHARANI SIVAPRIYA. S	MQ	NIL	7.4323	78	82	80		58	66	20	52	76	74	64	61	85	84	94	79	40	58	A	50	80	52	58	70
6	813822112006	255006	GOKUL. M	GQ	NIL	8.2188	58	76	70		70	64	62	81	78	74	82	82	78	86	94	91	76	72	72	68	50	56	56	75
7	813822112007	255007	HELAN SOPHIA. B	MQ	NIL	8.4479	82	86	75		74	68	82	75	86	88	84	86	92	98	100	98	86	64	72	73	72	76	50	78
8	813822112008	255008	JELCY CHIRISTILA. P	GQ	NIL	7.5365	78	76	75		70	32	56	76	66	60	62	80	75	90	94	84	64	58	56	63	54	52	20	58
9	813822112009	255009	KARTHIVASAN. R	MQ	3	*	24	A	78		24	A	22	55	54	38	52	45	50	64	74	58	36	A	40	50	20	38	16	34
10	813822112010	255010	KAVIYA. C	GQ	NIL	7.5781	84	76	76		46	52	54	71	60	78	66	69	68	78	92	83	80	62	72	59	54	26	18	31
11	813822112011	255011	LAKSHMI PRIYA. S	MQ	2	*	32	78	78		20	42	22	36	46	58	36	57	52	A	72	92	82	50	20	54	24	10	8	14
12	813822112012	255012	LOGA PRAGASH. C	MQ	2	*	84	84	77		50	38	10	38	54	74	46	50	84	56	74	67	50	42	12	50	8	26	32	34
13	813822112013	255013	MADHUMITHA. M	GQ	NIL	7.4479	50	54	75		56	50	28	58	74	62	70	73	80	68	74	73	68	52	58	50	54	26	24	38
14	813822112014	255014	MAHALAKSHMI. K	GQ	NIL	8.5469	86	90	74		78	74	70	56	68	80	76	88	79	88	96	95	90	62	66	62	76	70	62	87
15	813822112015	255015	MURALIDHARAN. S	GQ	NIL	7.625	64	86	77		58	28	26	48	68	62	46	68	42	66	68	82	50	34	40	36	50	28	18	50
16	813822112016	255016	NAVANEETHA KRISHNAN L	GQ	NIL	7.8438	92	90	75		32	48	58	62	66	62	46	68	80	54	80	57	58	42	42	55	82	58	64	64
17	813822112017	255017	ROHIT. R	MQ	NIL	7.2917	50	66	76		26	60	60	36	58	60	60	72	82	60	76	86	58	44	58	57	18	30	26	38

18	813822112018	255018	SABARISH. K	GQ	NIL	7.6667	78	78	83		54	62	50	57	64	70	54	68	82	92	92	87	66	68	58	50	52	30	16	41
19	813822112019	255019	SHASVANTH. J	GQ	4	*	38	52	79		30	10	6	15	44	68	58	78	57	52	78	67	54	38	62	52	8	26	36	33
20	813822112020	255020	SOBHANA VIDHYADHARSINI. R S	MQ	NIL	7.8177	58	88	27		56	64	86	66	70	78	74	77	64	76	88	87	74	68	66	52	50	50	34	57
21	813822112021	255021	SRIVARSHINI. S	MQ	2	*	A	66	80		22	26	16	26	46	48	48	59	44	A	92	65	50	16	38	50	22	4	6	11
22	813822112022	255022	SUKISIVAM. T	GQ	NIL	7.1042	62	68	70		64	46	20	54	56	60	62	57	62	60	84	68	44	56	58	18	52	26	22	30
23	813822112023	255023	SUNIL RAJA. R	MQ	1	*	34	80	79		44	44	30	27	54	50	50	59	54	66	82	64	38	42	24	50	16	50	32	30
24	813822112024	255024	SURIYAMOORTHY. S	MQ	1	*	38	78	91		42	42	32	52	66	66	32	63	A	60	A	66	62	36	58	52	34	18	24	31
25	813822112025	255025	VETHESNAN. P	MQ	3	*	54	78	78		36	34	16	16	48	58	48	50	56	60	64	46	50	66	28	20	6	26	0	5
26	813822112301	255026	ARUL VICTOR RAJ. B M	GQ	4	*	32	73	83		64	40	12	43	34	62	48	53	39	58	72	57	56	60	50	27	6	4	4	13
27	813822112302	255027	RAGAVAN. D	MQ	2	*	54	54	63		52	26	42	43	60	50	50	62	57	72	82	79	60	54	66	38	30	26	34	51
28	813822112303	255028	RAKSHAN DARWIN. I	GQ	NIL	7.266	42	84	68		58	60	38	64	52	68	58	65	61	82	82	79	68	70	50	50	30	50	32	50
No.of Failures(<50)							7	0	1	0	11	13	16	12	6	2	9	1	4	0	0	1	4	9	8	5	13	16	22	16

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '5' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'ICE' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:ICE Semester:5 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	BM3491-paranthagan-eee			CEI355-nithyalakshmi-aid			CIC342-shanmugavalli-ice			CIC345-satheesh-eee			EI3551-girirajkumar-ice			IC3501-gopi-ice		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813821112001	245001	ANJALI. N	GQ	1	*	68	70	86	54	82	60	60	54	72	76	54	22	51	39	33	50	42	26
2	813821112002	245002	DEEPTHI SWARNAA. M	GQ	NIL	7.5926	54	60	78	76	50	62	52	58	68	68	58	46	60	50	28	50	58	50
3	813821112004	245004	JEEVANATHAN. S	GQ	NIL	7.7593	66	50	66	72	72	51	68	50	62	70	60	53	40	36	20	44	50	60
4	813821112005	245005	KAAVYA. N R	GQ	NIL	8.0111	80	72	82	92	88	84	82	72	A	84	82	50	62	62	46	71	78	72
5	813821112006	245006	KARTHICK. N	GQ	NIL	7.7407	64	70	76	60	90	A	90	74	84	68	60	64	65	54	40	64	77	62
6	813821112007	245007	KESAVAN. T	GQ	13	*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
7	813821112008	245008	KOUSHIK. T	MQ	NIL	7.537	52	66	74	68	78	74	78	64	82	76	54	50	50	45	26	57	50	37
8	813821112009	245009	LAWRANCE. J	GQ	NIL	7.7667	74	64	62	56	90	62	76	68	66	76	56	60	50	56	30	43	52	40
9	813821112010	245010	MATHANGINI. M	GQ	NIL	8.8796	86	90	92	74	78	94	86	68	94	78	86	72	81	79	68	81	89	78
10	813821112011	245011	MOHAMED FAYIQ SHAREEF. M F S	GQ	1	*	56	64	78	52	52	50	62	50	66	66	38	46	52	50	20	29	28	12
11	813821112012	245012	MOHAMMED ABDULLAH. N	MQ	NIL	8.9037	84	82	90	80	90	76	86	88	94	88	78	63	85	63	66	78	82	56
12	813821112013	245013	MURSHATH BASHA. I	MQ	NIL	7.763	52	60	76	60	90	76	72	52	70	62	A	60	68	51	30	35	64	50
13	813821112014	245014	PRASANNA. V	GQ	NIL	8.563	62	96	80	84	92	70	86	82	76	80	88	78	79	78	66	74	88	78
14	813821112015	245015	PRAVEENA. M	GQ	NIL	8.1852	66	80	A	80	74	66	88	72	A	80	72	50	73	60	42	59	75	58

15	813821112016	245016	SACHIN. S	GQ	2	*	76	58	68	66	76	60	60	60	62	54	68	38	44	36	39	32	40	60
16	813821112017	245017	THIRUMALAI KUMAR. G	MQ	NIL	8.4222	80	88	78	80	90	78	86	82	88	74	80	77	92	76	59	70	74	78
17	813821112301	245019	FURKHAN ANAS. H	MQ	NIL	7.8901	70	88	76	66	74	78	82	80	88	64	70	60	56	66	46	50	74	64
18	813821112302	245020	LOGESH. A	GQ	1	*	74	66	66	50	64	66	64	64	64	78	60	62	46	46	26	28	50	36
19	813821112303	245018	SHUJATH ALI KHAN. M	MQ	NIL	7.6978	80	88	88	50	50	56	76	50	74	74	66	77	63	60	44	40	58	36
No.of Failures(<50)							0	0	0	0	0	0	0	0	0	0	1	4	2	5	13	6	3	5

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '7' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'ICE' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:ICE Semester:7 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	EC8093-hariprasath-ece				EI8075-satheesh-eee				EI8091-seetharaman-ice				EI8692-gaayathry-ice				EI8751-gopi-ice				GE8073[8]-shanmugavalli-ice			
							A1	M1	A2	A3	A1	M1	A2	A3	A1	M1	A2	A3	A1	M1	A2	A3	A1	M1	A2	A3	A1	M1	A2	A3
1	813820112001	235001	BALAJI. V	MQ	NIL	7.6278	60		54	74	44	50	60	50	58		30	58	30		54	82	32		54	60	62		74	50
2	813820112002	235002	BARANI DARAN. R	GQ	NIL	8.4167	56		68	76	64		78	A	82		38	58	64		64	A	78		52	70	74		68	88
3	813820112003	235003	BOOMIKA. S	GQ	NIL	8.2912	68		62	86	50		58	58	80		46	78	58		66	60	60		60	54	A		76	72
4	813820112004	235004	CHANDRU. V	GQ	NIL	7.7802	62		52	84	52		60	44	70		50	50	42		52	A	28		56	50	52		72	40
5	813820112005	235005	HARI PRAKASH. R	MQ	NIL	8.3167	80		74	90	74		88	52	96		82	84	54		72	A	58		78	74	72		88	76
6	813820112006	235006	HARI VARSHINI. S	MQ	NIL	8.1758	60		70	76	62		76	A	86		60	56	68		74	60	60		72	62	76		92	A
7	813820112007	235007	IRSHATH AHMED. M S	GQ	NIL	7.8556	42		60	54	40	50	54	41	34		62	44	50		54	58	28		52	40	42		68	50
8	813820112008	235008	JOE JASPER RAJA. B	GQ	NIL	7.7	40		60	58	44	50	50	40	64		60	20	52		50	A	28		50	23	42		68	50
9	813820112009	235009	KAVIN. G	GQ	NIL	8.4066	60		72	82	64		80	66	72		56	72	54		64	A	66		70	56	70		82	86
10	813820112010	235010	KEERTHI VASAN. K	GQ	NIL	7.6813	62		62	56	42	50	66	26	60		34	16	44		50	70	36		34	12	42		66	14
11	813820112011	235011	MUKESH. P	MQ	NIL	7.8132	30		70	76	50		50	60	60		56	32	24		60	66	62		50	50	42		66	50
12	813820112012	235012	PRITHIV RAJ. A	GQ	NIL	8.5722	70		68	86	58		64	57	72		62	74	50		60	A	60		64	68	72		56	68
13	813820112013	235013	RAGUL. P	GQ	2	*	58		50	50	38	50	42	A	28		52	A	38		46	A	34		50	38	34		64	58
14	813820112014	235014	ROHAN. S	MQ	NIL	8.1319	72		62	82	64		54	62	78		76	78	52		62	56	56		56	50	50		80	66
15	813820112015	235015	SANTHOSH. R	MQ	NIL	7.5275	58		50	54	44	50	36	52	50		42	50	40		42	68	16		50	28	60		22	50
16	813820112016	235016	SARAVANA KUMAR. K P	MQ	1	*	54		70	56	50		58	40	52		74	54	30		52	36	20		26	30	50		54	16
17	813820112017	235017	SHARAN. R	GQ	NIL	8.511	62		66	84	72		72	80	92		94	94	66		68	76	50		80	68	80		80	70

18	813820112018	235018	SHERENE AMALIA. G	GQ	NIL	8.6429	80		92	90	70		88	82	80		44	56	76		66	A	62		72	74	78		86	86
19	813820112019	235019	SIVA SUBRAMANIAN. A	MQ	NIL	7.8111	50		64	64	42	50	36	52	60		56	10	50		42	52	52		60	38	50		62	50
20	813820112020	235020	SUDHARSAN. B	GQ	NIL	7.4615	46		50	50	38	50	16	64	50		24	22	32		40	72	26		38	38	12		52	28
21	813820112021	235021	SUDHARSAN. S	MQ	NIL	7.4833	68		62	64	50		58	50	68		48	16	52		50	52	52		50	50	54		60	50
22	813820112022	235022	VIGNESH.S	GQ	NIL	8.0833	72		80	74	60		72	74	78		42	62	64		66	78	50		50	62	68		82	64
23	813820112023	235023	VINOTH. M	GQ	NIL	7.9725	62		80	60	42	50	44	40	36		52	50	50		44	70	35		10	50	62		56	62
24	813820112024	235024	VISHAL RAJ I P	MQ	NIL	8.3056	66		72	66	64		72	62	78		80	72	54		44	72	54		70	62	72		70	68
25	813820112025	235025	YESHVANT. BA	GQ	NIL	8.1923	60		58	68	54		62	68	60		72	82	50		56	66	68		60	64	38		90	50
26	813820112026	235026	YOKESWARAN. T	GQ	NIL	8.0934	50		68	54	50		54	54	52		8	68	50		50	56	56		52	52	34		60	36
27	813820112301	235028	LEENA. R	GQ	NIL	8.3258	70		86	86	58		60	62	56		54	64	66		58	82	50		72	64	78		90	86
28	813820112303	235027	SUBHASAN. R	GQ	NIL	8.0615	60		64	72	64		68	68	82		68	50	56		50	A	50		64	60	62		60	84
No.of Failures(<50)							4	0	0	0	9	0	5	6	3	0	10	7	8	0	6	1	10	0	4	8	8	0	1	5

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '4' and b.sec = 'A' and b.semperiod = '23-24EVEN' and b.branch = 'ICE' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:ICE Semester:4 Section:A

Semester Period:23-24EVEN

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	EI3451-seetharaman-ice				GE3451-muruganandam-che				IC3401-satheesh-eee				IC3402-anthuvanlydia-ece				IC3451-gopi-ice				IC3452-balasubramanian-eee			
							A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5	A1	A2	A3	A5
1	813822112001	255001	AADHIL MOHAMED. I	GQ	1	*	60	64	84		28	55	52		30	34	50		44	72	64	100	36	14	10		22	61	82	
2	813822112002	255002	ADITHYA. G	GQ	NIL	8.9375	86	92	98		71	71	54		65	66	83		90	88	98	100	74	78	74		94	97	98	
3	813822112003	255003	AMRITHA. J	MQ	NIL	7.6198	68	90	62		65	74	60		51	71	73		74	74	94	100	56	78	62		92	99	98	
4	813822112004	255004	BHUVANAESWARI. M	MQ	NIL	6.9896	32	48	52		20	47	44		21	38	42		50	72	48	100	50	62	58		88	92	74	
5	813822112005	255005	DHARANI SIVAPRIYA. S	MQ	NIL	7.4323	38	58	38		31	41	42		54	44	45		74	68	48	100	68	68	58		92	98	84	
6	813822112006	255006	GOKUL. M	GQ	NIL	8.2188	68	94	68		56	71	70		60	74	78		38	84	86	100	76	80	92		94	97	96	
7	813822112007	255007	HELAN SOPHIA. B	MQ	NIL	8.4479	70	92	76		50	82	70		65	60	71		84	96	92	100	76	70	90		90	99	98	
8	813822112008	255008	JELCY CHIRISTILA. P	GQ	NIL	7.5365	58	70	54		50	40	38		56	56	70		70	58	64	100	70	56	58		84	99	86	
9	813822112009	255009	KARTHIVASAN. R	MQ	3	*	52	68	62		40	52	54		34	52	51		52	72	58	98	11	50	44		78	56	92	
10	813822112010	255010	KAVIYA. C	GQ	NIL	7.5781	50	58	38		70	61	28		38	52	62		70	76	70	100	50	62	62		80	85	84	
11	813822112011	255011	LAKSHMI PRIYA. S	MQ	2	*	20	40	38		10	18	34		14	30	45		26	62	66	98	50	50	50		62	93	86	
12	813822112012	255012	LOGA PRAGASH. C	MQ	2	*	58	58	54		39	34	60		12	38	36		44	52	60	100	40	14	18		88	94	90	
13	813822112013	255013	MADHUMITHA. M	GQ	NIL	7.4479	60	62	68		56	50	62		26	55	36		52	88	84	100	36	62	A		86	97	92	
14	813822112014	255014	MAHALAKSHMI. K	GQ	NIL	8.5469	82	86	78		27	43	66		56	58	66		80	96	90	100	52	66	62		96	98	92	
15	813822112015	255015	MURALIDHARAN. S	GQ	NIL	7.625	44	62	68		33	52	43		67	58	44		64	74	68	100	50	60	20		90	95	86	
16	813822112016	255016	NAVANEETHA KRISHNAN L	GQ	NIL	7.8438	56	62	52		30	52	32		34	46	50		66	70	70	100	52	69	70		82	94	88	
17	813822112017	255017	ROHIT. R	MQ	NIL	7.2917	54	76	38		25	51	45		14	60	58		50	76	84	100	21	50	40		70	89	90	

18	813822112018	255018	SABARISH. K	GQ	NIL	7.6667	70	66	58		39	33	64		50	53	58		70	74	66	100	66	54	72		94	93	94	
19	813822112019	255019	SHASVANTH. J	GQ	4	*	50	58	50		14	41	42		24	22	36		70	78	60	100	66	30	36		68	72	76	
20	813822112020	255020	SOBHANA VIDHYADHARSINI. R S	MQ	NIL	7.8177	64	76	82		52	32	50		36	52	73		84	96	90	100	60	58	66		82	95	82	
21	813822112021	255021	SRIVARSHINI. S	MQ	2	*	36	48	54		37	A	46		27	A	39		72	A	72	96	54	50	52		68	87	84	
22	813822112022	255022	SUKISIVAM. T	GQ	NIL	7.1042	34	62	88		12	42	2		30	57	50		66	70	32	100	66	42	62		80	88	88	
23	813822112023	255023	SUNIL RAJA. R	MQ	1	*	38	72	58		25	50	22		27	34	50		50	72	44	100	36	24	38		78	92	82	
24	813822112024	255024	SURIYAMOORTHY. S	MQ	1	*	44	48	30		32	62	46		6	32	50		74	74	76	100	54	28	52		92	94	88	
25	813822112025	255025	VETHESNAN. P	MQ	3	*	52	68	60		25	29	24		38	44	52		60	68	74	100	50	30	26		84	89	80	
26	813822112301	255026	ARUL VICTOR RAJ. B M	GQ	4	*	52	42	60		6	29	34		25	38	40		76	66	54	100	8	12	14		62	84	76	
27	813822112302	255027	RAGAVAN. D	MQ	2	*	58	58	50		17	51	43		38	44	44		62	70	32	100	50	54	56		80	92	80	
28	813822112303	255028	RAKSHAN DARWIN. I	GQ	NIL	7.266	80	74	58		36	51	60		52	55	58		68	76	64	100	68	66	68		89	97	90	
No.of Failures(<50)							8	5	5	0	19	12	16	0	18	12	10	0	4	0	5	0	7	8	9	0	1	0	0	0

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '6' and b.sec = 'A' and b.semperiod = '23-24EVEN' and b.branch = 'ICE' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:ICE Semester:6 Section:A

Semester Period:23-24EVEN

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	CIC339-satheesh-eee			CIC340-seetharaman-ice			CIC341-gaayathry-ice			CIC343-shanmugavalli-ice			EI3651-gopi-ice			EI3652-girirajkumar-ice		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813821112001	245001	ANJALI. N	GQ	1	*	22	20	60	54	68	66	A	60	54	A	72	84	A	50	50	40	9	60
2	813821112002	245002	DEEPTHI SWARNAA. M	GQ	NIL	7.5926	50	40	38	68	80	30	58	66	40	72	74	52	64	54	56	70	55	52
3	813821112004	245004	JEEVANATHAN. S	GQ	NIL	7.7593	66	62	56	64	74	56	52	60	50	70	66	66	52	52	62	56	55	54
4	813821112005	245005	KAAVYA. N R	GQ	NIL	8.0111	60	71	52	50	68	A	60	58	68	62	66	72	57	62	66	55	50	50
5	813821112006	245006	KARTHICK. N	GQ	NIL	7.7407	64	56	66	46	50	82	68	58	70	70	76	80	68	72	74	53	57	52
6	813821112007	245007	KESAVAN. T	GQ	13	*	A	A		A	A		A	A		A	A		A	A		A	A	
7	813821112008	245008	KOUSHIK. T	MQ	NIL	7.537	60	60	70	48	74	62	60	54	62	66	70	74	64	60	54	50	43	50
8	813821112009	245009	LAWRANCE. J	GQ	NIL	7.7667	66	52	58	68	76	76	62	62	76	70	70	82	63	58	68	58	50	67
9	813821112010	245010	MATHANGINI. M	GQ	NIL	8.8796	80	80	66	94	90	88	74	82	80	76	86	94	82	72	80	76	78	79
10	813821112011	245011	MOHAMED FAYIQ SHAREEF. M F S	GQ	1	*	40	46	50	62	66	70	66	38	62	72	68	82	50	54	64	52	70	74
11	813821112012	245012	MOHAMMED ABDULLAH. N	MQ	NIL	8.9037	71	74	76	76	68	66	70	80	76	90	84	94	86	80	80	75	78	A
12	813821112013	245013	MURSHATH BASHA. I	MQ	NIL	7.763	60	54	74	68	72	72	64	46	64	54	74	80	70	62	56	54	66	76
13	813821112014	245014	PRASANNA. V	GQ	NIL	8.563	82	80	68	74	70	90	76	66	64	70	84	84	84	68	70	63	66	67
14	813821112015	245015	PRAVEENA. M	GQ	NIL	8.1852	50	66	64	72	80	70	64	62	70	80	80	92	78	62	68	52	52	58

15	813821112016	245016	SACHIN. S	GQ	2	*	42	60	64	54	44	58	58	40	58	72	70	76	54	56	A	30	36	50
16	813821112017	245017	THIRUMALAI KUMAR. G	MQ	NIL	8.4222	58	68	64	78	86	62	76	80	76	90	86	80	80	78	80	69	75	68
17	813821112301	245019	FURKHAN ANAS. H	MQ	NIL	7.8901	64	60	66	80	58	74	76	64	70	84	64	86	79	70	84	54	53	56
18	813821112302	245020	LOGESH. A	GQ	1	*	30	64	60	56	70	72	50	44	56	74	80	80	43	52	52	50	52	64
19	813821112303	245018	SHUJATH ALI KHAN. M	MQ	NIL	7.6978	44	54	42	82	76	74	72	54	52	84	62	82	78	60	76	54	62	70
No.of Failures(<50)							4	3	2	2	1	1	0	3	1	0	0	0	0	0	0	2	3	0

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.20.10.2023

Circular

Internal Assessment Test – 1 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 30.10.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – THIRD HOUR

11.50 a.m. – 12.45 p.m. – FOURTH HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

Second Year FIRST IA TEST FOR I AND II Year _October 2023

S.No.	1	2	3	4	5	6
Date	30.10.2023	31.10.2023	01.11.2023	02.11.2023	03.11.2023	4.11.2023
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	EC3352 -Digital System Design	EC3354 - Signals and Systems	CS3353 - C Programming and Data Structures
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	ME3393 - Manufacturing Processes	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery	ME3391 - Engineering Thermodynamics
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.24.8.2023

Circular

First Internal Assessment Test for Third (5th Sem.) & Final (VII Sem.) B.E./B.Tech., Classes will commence from 29.8.2023 as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – First Hour

11.50 a.m. – 12.45 p.m. – Second Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
29.8.2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control	ME3592-Metrology and Measurements	CE3501-Design of Reinforced Concrete Structural Elements	CCS335-Cloud computing	CS3691-Embedded System and IOT
31.8.2023	CS3501-Compiler Design	CEC332-Advanced Digital Signal Processing	EE3025-Electric Vehicle Architecture	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	CCS334-BigData Analysis	CW3551-Data and Information Security
2.9.2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	AD3501-Deep Learning	CCS335-Cloud Computing
4.9.2023	CS3551-Distributed Computing	CEC331-4G/5G Communication Networks	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CW3551-Data and Information Security	CCS367-Storage Technologies
5.9.2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CS3551-Distributing Computing	CW3501-Fundamentals of Management
9.9.2023	CCS375-Web Technologies	EC3501-Wireless Communication	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation		CE3025-Airports and Harbours	CCS341- Data Warehousing	

Principal

SARANATHAN COLLEGE OF ENGINEERING

FIRST IA TEST FOR THIRD & FINAL YEAR STUDENTS _AUGUST / SEPTEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
29.8.2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
31.8.2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
2.9.2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	EI8091-InstrumentationinPetrochemical Industries	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
4.9.2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
5.9.2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9.9.2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	GE8073-Fundamentals of Nanoscience	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.23.11.2023

Circular

Internal Assessment **Test – 2** for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 27.11.2023 (MONDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – FIRST HOUR

11.50 a.m. – 12.45 p.m. – SECOND HOUR

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	MA3355 -Random Processes and Linear Algebra	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	CS3353 - C Programming and Data Structures	EI3354 - Linear Integrated Circuits and Applications	EI3351 - Analog Electronics
Mech.,	MA3351 - Transforms and Partial Differential Equations	ME3392 - Engineering Materials and Metallurgy	ME3393 - Manufacturing Processes	ME3391 - Engineering Thermodynamics	ME3351 - Engineering Mechanics	CE3391 - Fluid Mechanics and Machinery
CIVIL	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3302 - Construction Materials and Technology	CE3303 - Water Supply and Wastewater Engineering	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

SECOND IA TEST FOR II Year _November 2023

S.No.	1	2	3	4	5	6
Date	27-Nov-23	28-Nov-23	30-Nov-23	01-Dec-23	04-Dec-23	05-Dec-23
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.30.10.2023

Circular

Third Internal Assessment Test for Third Year (5th Sem.) & Final Year (VII Sem.) B.E./B.Tech., Classes will commence from 2nd November 2023 (THURSDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – 1st Hour

11.50 a.m. – 12.45 p.m. – 2nd Hour

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS NOVEMBER 2023

Year: THIRD YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL	AIDS	CSBS
2nd November 2023	CS3591-Computer Networks	EC3552-VLSI and Chip Design	EE3016-Embedded System Design	IT3501-Full Stack Web Development	EI3551-Process Control		CE3501-Design of Reinforced Concrete Structural Elements	CCS334- Big Data Analytics	CCS335-Cloud Computing
4th November 2023	CS3501-Compiler Design	CEC331-4G/5G Communication Networks	EE301-Power Electronics for Renewable Energy Systems	CS3691-Embedded System and IOT	CEI355-Computer Architecture	CME340-CAD/CAM	CE3502-Structures Analysis -1	AD3501-Deep Learning	CS3691-Embedded System and IOT
6th November 2023	CB3491-Crytography and Cyber Security	EC3551-Transmission Lines and RF Systems	EE3012-Electrical Drives	CS3591-Computer Networks	IC3501-Advanced Control Theory	CME339-Additive Manufacturing & CME387-Non Traditional Machining Processes	CE3503-Foundation Engineering	CW3551-Data and Information Security	CW3551-Data and Information Security
7th November 2023	CS3551-Distributed Computing	EC3501-Wireless Communication	EE3591-Power Electronics	CS3551-Distributed Computing	CIC345-Renewable Systems	CME364-Energy Storage Devices	CE3003-Prefabricated Structures	CS3551-Distributing Computing	
8th November 2023	CCS360-Recommender Systems	CEC342-Mixed Signal IC Design Testing	EE3503-Control Systems	CCS341-Data Warehousing	CIC342-Thermal Power Plant Instrumentation	ME3591-Design of Machine Elements	CE3005-Rehabitation / Heritage Restoration	CCS341- Data Warehousing	CW3501-Fundamentals of Management
9th November 2023	CCS375-Web Technologies	CEC332-Advanced Digital Signal Processing	EE3501-Power System Analysis	CCS346-Exploratory Data Analysis	BM3491-Biomedical Instrumentation	ME3592-Metrology and Measurements	CE3025-Airports and Harbours	CCS335-Cloud computing	CCS367-Storage Technologies

Principal

SARANATHAN COLLEGE OF ENGINEERING

THIRD IA TEST FOR THIRD & FINAL YEAR STUDENTS _ NOVEMBER 2023

Year: FINAL YEAR

Date	CSE	ECE	EEE	IT	ICE	MECH.,	CIVIL
2nd November 2023	MG8591-Principles of Management	EC8702-Adhoc and Wireless Sensor Networks	EE8010-Power System Transients	CS8791-Cloud Computing	EI8751-IndustrialData Networks	ME8792-Power Plant Engineering	CE8701-Estimation, Costing and Valuation Engineering
4th November 2023	CS8791-Cloud Computing	EC8791-Embedded and Real Time Systems	EE8701-High Voltage Engineering	IT8075-Software Project Management	EC8093-Digital Image Processing	ME8791-Mechatronics	CE8702-Railways, Airports, Docks and Harbour Engineering
6th November 2023	CS8792-Cryptography and Network Security	OIC751-Transducer Engineering	EE8703-Renewable Energy Systems	CS8792-Cryptography and Network Security	GE8073-Fundamentals of Nanoscience	ME8793-Process Planning and Cost Estimation	CE8703-Structural Design and Drawing
7th November 2023	OBM752-Hospital Management	EC8701-Antennas and Microwave Engineering	EI8075-Fiber Optics and Laser Instrumentation	MG8591-Principles of Management	EI8075-Fiber Optics and Laser Instrumentation	ME8009-Robotics	OME754-Industrial Safety
8th November 2023	IT8075-Software Project Management	EC8094-Satellite Communication	EE8702-Power System Operation and Control	IT8005-E-Commerce	EI8692-Electronic Instrumentation	OMF751-Lean Six Sigma	
9th November 2023	GE8076-Professional Ethics in Engineering	EC8751-Optical Communication	EE8017-High Voltage Direct Current Transmission	OBM752-Hospital Management	EI8091-Instrumentationin Petrochemical Industries	IE8693-Production Planning and Control	

Principal

Saranathan College of Engineering
Tiruchirapalli – 12

Dt.21.12.2023

Circular

Internal Assessment Test – 3 for SECOND YEAR (THIRD SEMESTER) B.E./B.Tech., Classes will commence from 26.12.2023 (TUESDAY) as per the time table attached.

Test Duration

9.15 am to 10.45 am (1 ½ Hours)

Class Timings after the I.A. Test

10.45 a.m. – 11.00 am Break

11.00 a.m. – 11.50 a.m. – **FIRST HOUR**

11.50 a.m. – 12.45 p.m. – **SECOND HOUR**

Afternoon classes will be held as per regular timetable

As per the instructions from Anna University, Chennai, the Internal Assessment Test Marks will be entered in the "Anna University WEB Portal" as soon as the tests are over. The internal marks will be awarded by Anna University Chennai based on your performance in I.A. Tests. Students are advised to take the I.A. Tests seriously and score more marks.

Question Paper Pattern will be informed by the respective subject handling Staff Members

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21/12/23

Principal

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 12

THIRD IA TEST FOR II Year _December 2023

S.No.	1	2	3	4	5	6
Date	26-Dec-23	27-Dec-23	28-Dec-23	30-Dec-23	02-Jan-24	03-Jan-24
CSE	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CS3301 – Data Structures	CS3391 – Object Oriented Programming	
ECE	EC3353 -Electronic Devices and Circuits	EC3351 - Control Systems	MA3355 -Random Processes and Linear Algebra	CS3353 - C Programming and Data Structures	EC3354 - Signals and Systems	EC3352 -Digital System Design
EEE	MA3303-Probability and Complex Functions	EE3301-Electromagnetic Fields	EE3302-Digital Logic Circuits	EC3301-Electron Devices and Circuits	EE3303-Electrical Machines-I	CS3353-C Programming and Data Structures
IT	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 – Data structures and Algorithms	CS3391 – Object Oriented Programming	
ICE	MA3353 - Transforms and Partial Differential Equations	EI3352 - Digital System Design and Applications	EI3353 - Transducer Engineering	EI3354 - Linear Integrated Circuits and Applications	CS3353 - C Programming and Data Structures	EI3351 - Analog Electronics
Mech.,	ME3393 - Manufacturing Processes	ME3351 - Engineering Mechanics	MA3351 - Transforms and Partial Differential Equations	ME3391 - Engineering Thermodynamics	ME3392 - Engineering Materials and Metallurgy	CE3391 - Fluid Mechanics and Machinery
CIVIL	CE3303 - Water Supply and Wastewater Engineering	CE3302 - Construction Materials and Technology	MA3351 - Transforms and Partial Differential Equations	ME3351 - Engineering Mechanics	CE3301 Fluid Mechanics	CE3351 - Surveying and Levelling
CSBS	MA3354 - Discrete Mathematics	CS3351 - Digital Principles and Computer Organization	AD3491 - Fundamentals of Data Science and Analytics	CS3391 - Object Oriented Programming	AD3351 - Design and Analysis of Algorithms	CW3301 - Fundamentals of Economics
AIDS	MA3354 – Discrete Mathematics	CS3351 – Digital Principles & Computer Organization	AL3391 – Artificial Intelligence	AD3351 – Design & Analysis of Algorithms	AD3301 – Data Exploration & Visualization	AD3391 – Database Design & Management
AIML	MA3354 – Discrete Mathematics	CS3351 – Digital Principles and Computer Organization	CS3352 – Foundations of Data Science	CD3291 - Data Structures and Algorithms	CS3391 – Object Oriented Programming	

Principal

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date	12.04.23	Marks	50
Course code	CS3491	**Course Title**	Artificial Intelligence and Machine Learning			
Batch No.		**Duration**	90 mins	**Academic Year**	2022-23 Even	
Year/	II	**Semester**	IV	**Department**	IT	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Mention some applications of Bayesian networks.	C211.3	R
2	What is the need for Probabilistic Inference system?	C211.3	U
3	What do you mean by rejection sampling in Bayesian networks?	C211.3	R
4	What is machine Learning?.	C211.4	R
5	Define bias and variance	C211.4	R
6	List the different algorithmic techniques in machine learning.	C211.4	R
7	What are the reasons for overfitting? How can the problem be avoided?	C211.4	R
8	Distinguish supervised and unsupervised machine learning?	C211.4	R
9	What are the 3 stages to build hypothesis or model in machine learning?	C211.4	U
10	What is regression analysis?	C211.4	R

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Discuss the exact inferences in Bayesian networks..	C211.3	U
	OR		
12a	Explain the Markov chain simulation method for inference in Bayes networks. (6)	C211.3	U
b	Write short notes on causal networks. (4)	C211.3	U
13a	Explain logistic regression in detail (6)	C211.4	U
b	Briefly explain Bayesian linear regression. (4)		
	OR		
14	Explain the principle of the gradient descent algorithm with diagrams.	C211.4	U

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15a	Given that P(A)=0.3,P(A|B)=0.4 and P(B)=0.5, Compute P(B|A). (3)	C211.4	A
b	Suppose there is a marketing company A, who does various advertisement every year and get sales on that. The below list shows the advertisement made by the company in the last 5 years and the corresponding sales: The company wants to do the advertisement of $200 in the year 2023 and wants to know the prediction about the sales for this year. Solve using linear regression. (7)	C211.4	A

	Advertisements | Sales $90 | $ 1000 $120 | $ 1300 $150 | $ 1800 $100 | $ 1200 $130 | $ 1830		
	OR		
16	Suppose we have the following dataset with one response variable *y* and two predictor variables X_1 and X_2: y | X_1 | X_2 140 | 60 | 22 155 | 62 | 25 159 | 67 | 24 179 | 70 | 20 192 | 71 | 15 200 | 72 | 14 212 | 75 | 14 215 | 78 | 11 Use the following steps to fit a multiple linear regression model to this dataset.	C211.4	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Name of the Staff: Ms.N.Bhavani, Asso.Prof / IT

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK P. Kaviya

Name	P. Kaviya			Year / Semester / Section	III / V / A
Batch No.	244023	Date / Session	4/9/23 / FN	Department	IT
Course Code	CS3551	Course Title	Distributed Computing		
Internal Assessment Test	I ☑	II ☐	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date	P. Kaviya 4/9/23.				

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✓	Marks	Q. NO.	✓	(a) Marks	✓	(b) Marks	
1	✓	2	11					
2	✓	2	12	✓	3	✓	5	
3	✓	2	13					
4	✓	2	14	✓	7			
5	✓	1	15	✓	8			
6	✓	2	16					
7	✓	0					Total	23
8	✓	2						
9	✓	2						
10	✓	2						
Total		17	Grand Total		40		Name and Signature of the Examiner with date	

N. Bharani AB 5/9/23

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	36	14					50
Marks Obtained	28	12					40

QAC Audit - Remarks

NIL

16/09/23

Name and Signature of the QAC member

Saranathan College of Engineering
Department of Information Technology
Subject Wise Internal Assessment Tests Mark Report

Class:IT Semester:5 Section:A Subject Code:CS3551 Title : DISTRIBUTED COMPUTING
Subject Handled by: bhavani-it

S.no	Regno	Batchno	Name	IATEST-A1 9/4/2023	IATEST-A2 10/7/2023	IATEST-A3 11/7/2023
1	813821205001	244001	AARTHI. I	72	80	58
2	813821205002	244002	ARUN KUMAR. J	56	66	40
3	813821205003	244003	ASIKA. M	60	40	34
4	813821205004	244004	ASWIN. B	90	92	70
5	813821205005	244005	AUKUSTIN. R C	12	2	10
6	813821205006	244006	BARATH. S	54	70	58
7	813821205007	244007	BHARADWAJ. R	56	12	40
8	813821205008	244008	CYRILSIGMOND. A	40	40	34
9	813821205009	244009	DHARSHANA. C	80	74	64
10	813821205010	244010	DILIP. R	68	62	56
11	813821205011	244011	DINESH. S	30	24	34
12	813821205012	244012	GAYATHRI. A	64	62	60
13	813821205013	244013	GLORY NIKITA. G	64	52	54
14	813821205014	244014	GOKULA KRISHNAJI. S J	34	24	20
15	813821205015	244015	HARISH. C	64	70	40
16	813821205016	244016	HARRIS SAMUEL. D	66	60	52
17	813821205017	244017	HARSHITHA. S	82	84	66
18	813821205018	244018	ISHWARYA. S	76	76	52
19	813821205019	244019	JAI PRAKASH. R	26	26	32
20	813821205020	244020	JANANI. M	26	28	38
21	813821205021	244021	JOANNE PRANITA. G	50	40	28

22	813821205022	244022	KABILAN. S	78	70	56
23	813821205023	244023	KAVIYA. S	80	80	66
24	813821205024	244024	KIRUTHIKA LAKSHMI. D	50	58	50
25	813821205025	244025	KISHORE KUMAR. S	68	70	58
26	813821205026	244026	KUMARA KABILAN. P	54	A	54
27	813821205027	244027	LOKESH. T	70	64	62
28	813821205028	244028	MADHUMITA. V	66	70	60
29	813821205029	244029	MANIKANDAN. M	A	44	40
30	813821205030	244030	MANIKANDAN. S	68	68	56
31	813821205031	244031	MANJU SRI. S	68	68	64
32	813821205032	244032	MOHAN BABU. V	60	62	32
33	813821205033	244033	MURUGANANTHAN. C	50	38	36
34	813821205034	244034	MUTHU KUMAR. S	42	40	50
35	813821205035	244035	NEELAVENI. S	76	72	50
36	813821205036	244036	NIKILRAJ. L	14	6	24
37	813821205037	244037	NIVETAA. M	86	70	58
38	813821205038	244038	NIVETHETHAA. A S	68	70	66
39	813821205039	244039	PRITHADHARSHINI. S	72	76	68
40	813821205041	244040	RAMA MARIYAPPAN. K	74	82	64
41	813821205040	244041	RAMALAKSHMI ALIES PONMATHI.	50	50	A
42	813821205042	244042	RAMYA. B	66	68	44
43	813821205043	244043	SABREEN BEGAM. M	56	76	78
44	813821205044	244044	SAI ARAVIND. S	70	78	66
45	813821205045	244045	SARAVANAKKUMAR. D	76	66	74
46	813821205046	244046	SELLINE. E	82	78	66
47	813821205047	244047	SIBINESH. G	50	44	42
48	813821205048	244049	SRI DHANALAKSHMI. R	52	52	42
49	813821205049	244050	SRIHARIHARAN. T	50	56	50

50	813821205050	244051	SRIVIGNESH. S M	36	64	30
51	813821205051	244052	SUBHASHINI. R	90	84	82
52	813821205052	244053	SUVETHA. V	58	84	62
53	813821205053	244054	THIRISHA SRI. J	86	84	70
54	813821205054	244055	VEERENDRAN. A	32	42	44
55	813821205055	244056	VENGADASHAN. S	30	42	42
56	813821205056	244057	VIBILAN. S	92	80	80
57	813821205057	244058	VIJAY. I	38	56	44
58	813821205058	244059	VISHNU PRIYA. S	86	68	68
59	813821205059	244060	VISHWA. S	38	A	24
60	813821205060	244061	YAMUNA. B	50	36	54
61	813821205304	244062	SIVADHARSHINI. R B	24	14	30
62	813821205301	244063	GOKULAN. G	24	12	16
63	813821205302	244064	RICHARD AARON. S	22	14	A
64	813821205303	244065	SARAN. R	4	18	12

TIME TABLE FOR INTERNAL ASSESSMENT TEST - II UG / PG FOR II / III / IV YEAR (III SEM) ODD SEM 2017

1. IAT Schedule

SARANATHAN COLLEGE OF ENGINEERING

16.08.2017

CIRCULAR

Internal Assessment Test- II for II, III ,IV B.E / B.Tech, and II M.E. classes will commence from 22.08.2017 (Tuesday) as per the timetable displayed in the notice board.

FN Test duration : 9.30am to 11.00am (1 ½ Hours)
11.00 – 11.15 Break
11.15 – 12.45 Study Hour
12.45 – 1.30 Lunch
1.30 – 2.45 Study Hour
2.45 – 2.55 Break
AN Test duration : 3.00pm to 4.30pm (1 ½ Hours)
Max.Marks: 50

Staff members handling subjects for the above classes are requested to set the question paper for each subject (In the attached format). **The question papers for all subjects may be sent on or before *19.08.2017* (Saturday) to examcell@saranathan.ac.in**

Note: The question papers should be sent in the attached format only.[i.e., In Landscape orientation 2 question papers per page]. If your question paper is lengthy and not possible to set in the given format, kindly set the question paper in the A4 format [Portrait] (1 question paper per page).

SARANATHAN COLLEGE OF ENGINEERING TRICHY 620 012.

PRINCIPAL

PRINCIPAL
Saranathan College of Engineering
TRICHY - 12.

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TIME TABLE FOR INTERNAL ASSESSMENT TEST - II UG / PG FOR II / III / IV YEAR (III SEM) ODD SEM 2017

DATE	II MECH - A & B	III MECH - A & B	IV MECH - A & B	MET
22.08.2017 FN	MA6351 TRANSFORMS & PARTIAL DIFFERENTIAL EQUN. A-SEC Mr.S.SIVAMANI B-SEC Ms.N.SUBHASHINI	ME6502 HEAT & MASS TRANSFER A-SEC Ms.A.MERCYVASAN B-SEC Mr.M.SRIDHARAN	ME 6701 POWER PLANT ENGG A-SEC Dr.M.GANESAN B -SEC Mr.M.SRIRAM	TE7011 ADVANCED THERMAL STORAGE TECHNOLOGIES Mr.P.VIGNESHWAR
22.08.2017 AN	ME6301 ENGG. THERMODYNAMICS A -SEC Mr.S.BALAKRISHNAN B-SECMr.S.SATHYANARAYANAN	ME6501 COMPUTER AIDED DESIGN A-SEC Mr.R.VIGNESHWARAN B-SEC Mr.S.KARTHIKEYAN	ME 6702 MECHATRONICS A-SEC Ms.R.REKHA B -SEC Mr.B.VIKRAM	
23.08.2017 FN	CE6451 FLUID MECHANICS & MACHINERY A-SEC.Ms.R.S.SHIVARANJANI B-SEC Mr.R.KUMAR	ME6504 METROLOGY & MEASUREMENTS A-SEC Mr.S.KARTHIKEYAN B-SEC Mr.A.JACKSON	GE 6757 TOTAL QUALITY MANAGEMENT A-SEC Mr.A.SARAVANAN B-SEC Mr.G.MAHESH	TE7010 ADVANCED POWER PLANT ENGG. Ms.R.S.SHIVARANJANI
23.08.2017 AN	CE6306 STRENGTH OF MATERIALS A-SEC Dr.G.JAYAPRAKASH B-SEC Ms.R.REKHA	ME6503 DESIGN OF MACHINE ELEMENTS A-SEC Dr.G.JAYAPRAKASH B-SEC Mr.R.SURESH BABU	ME 6703 COMPUTER INTEGRATED MANUFACUTING SYSTEMS A-SEC Mr.P.V.RAJESH B-SEC Mr.A.SARAVANAN	

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TIME TABLE FOR INTERNAL ASSESSMENT TEST - II UG / PG FOR II / III / IV YEAR (III SEM) ODD SEM 2017

DATE	II MECH - A & B	MI MECH - A & B	IV MECH - A & B	MET
24.08.2017 FN	ME6302 MANUFACTURING TECHNOLOGY-I A-SEC Mr.MR.ANANTHA PADMANABAN B-SEC Dr.N.BASKAR	GE6075 PROFESSIONAL ETHICS IN ENGG. A SEC MR.P.JOTHI PALAVESAM B-SEC Mr.P.V.RAJESH	ME 6012 MAINTENANCE ENGG A-SEC Mr.P.JOTHI PALAVESAM B-SEC Mr.R.VIGNESHWARAN	EY7010 STEAM GENERATOR TECHNOLOGY Ms.A.MERCY VASAN
24.08.2017 AN	EE6351 ELECTRICAL DRIVES & CONTROL A-SEC Mr.R.VIJAY B-SEC Ms.V.AJITHA	ME6505 DYNAMICS OF MACHINES A-SEC Mr.S.VINOTH KUMAR B-SEC Dr.M.GANESAN	ME 6005PROCESS PLANNING & COST ESTIMATION A-SEC Dr.N.BASKAR B-SEC Mr.A.RANJITH RAJ	

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2. Assesment QP

Saranathan College of Engineering

Tiruchirapalli - 12

Internal Assessment Test - I			Date/Session	20.07.2017/AN	Marks	50
Course code	C302	Course Title	ME 6502 Heat and Mass Transfer			
Batch No.	2015-2019	Duration	90 Minutes	Academic Year	2017 - 2018	
Year	3	Semester/Section	5 / A & B	Department	Mechanical	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Define heat transfer. Mention the requirements of such a heat transfer to take place.	1	R
2	Differentiate conduction, convection and radiation.	1	U
3	Define critical radius of insulation and critical thickness.	1	R
4	Differentiate thermal conductivity and diffusivity with its units and dimensions.	1	U
5	Write down equations for conduction of heat through cylinder and sphere.	1	E
6	Define fin efficiency and effectiveness.	2	R
7	Differentiate semi-infinite and infinite solids.	2	U
8	List out the significance of Heislers chart.	2	R
9	Differentiate Laplace and Poisson equations with respect to steady state conditions.	1	A
10	Write down equations for surface temperature in slab and cylinder.	1	E

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Part – B (Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11 a	Derive general heat conduction equation in cylindrical coordinates. (7)	1	A
11 b	A concrete wall of 1m thick is poured with concrete. The hydration of concrete generates 150W/m^3heat. If both surface of wall is maintained at 35°C find the surface temperature of wall in which maximum temperature is of range 49.6°C. (3)	1	E
	(Or)		
12	A stainless steel tube (K=21.625 W/m-k) of 25 mm ID and 50 mm OD is covered with 25 mm layer of asbestos (K=0.244 W/m-k). If the inside wall temperature of pipe is maintained at 550°Cand outside insulator at 45°C. Calculate heat loss per meter length of pipe.	1	C
13	A heating unit is made in the form of cylinder is 6cm diameter and 1.2 m long. It is provided with 20 longitudinal fins 3mm thick which protrude 50 mm from the surface of the cylinder. The temperature at the base of the fin is 80°C with ambient temperature as 25°C.Calculate rate of heat transfer from finned wall to surroundings. (K=90W/m-k, h=10W/m^2k).	2	AZ
	(Or)		
14 a	Derive an expression for negligible internal resistance under transient heat conduction. (7)	2	R
b	Define characteristic length and derive the same for slab, cube, cylinder and sphere. (3)	2	U & C
15	A long steel cylinder 15cm diameter originally at a temperature of 35°C. It is placed in a furnace of 950°C. Calculate i) Time required for the axis temperature to reach 820°C. ii) Corresponding temperature at a radius of 6cm at that time. Take α= 6.11*10^{-6} m2/s, k=20 W/m-K, h= 150W/m^2-K.	2	AZ
	(Or)		
16	Derive expression as a mean to obtain second order linear differential equation in the form $\theta=C_1e^{-mx}+C_2e^{mx}$. Write down final expressions for various cases of fins.	2	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

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3. **Assesment answer sheet (FRONT PAGE)**

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	K.V. ARIVARAN			Year / Semester / Section	III / V / A
Batch No.	206014	Date / Session	20.8.19 / FN	Department	Mech. A
Course Code	ME8593	Course Title	Design of Machine elements		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used :
Name and Signature of the Invigilator with date	S. Vinath Kumar			20/8/19	

INSTRUCTIONS TO THE CANDIDATES

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✔	0	11					
2	✔	2	12	✔	08			08
3	✔	2	13	✔	05			05
4	✔	2	14					
5	✔	2	15	✔	10			10
6	✔	2	16					
7	✔	2					Total	23
8	✔	2						
9	✔	1						
10	✔	2						
Total		17						

~~50~~ 40/50

Grand Total

R. SOLESH BABU 20/9/19

Name and Signature of the Examiner with date

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total	
Marks allotted			30			20	50	100
Marks Obtained			21			19	40	80

QAC Audit - Remarks

Fill the course outcomes for 100 marks

S. Hariprasath AP 10/9/19

Name and Signature of the QAC member

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SARANATHAN COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

DEPARTMENT OF MECHANICAL ENGINEERING
(Accredited by NBA)

4. ROOT CAUSE ANALYSIS

Name of the Faculty : SRIDHARAN M
Degree & Program : B.E MECHANICAL B
IA Test : I /II/III/Model
Target : 95 %

Course Code & Name : ME6701
Semester & Section : VII & B
University Exam/Month & Year: NOV/DEC / 2019
Achieved : 97.01 %

S.NO	BATCH NO	NAME OF THE STUDENT	CAUSES FOR FAILURE	SIGNATURE OF THE STUDENT WITH DATE	CORRECTIVE ACTION TAKEN	PREVENTIVE ACTION TAKEN	FOLLOWUP STATUS	REMARKS OF THE HOD
1.	196070	RAGUL J	Lack of preparation.	J. Ragul 30-9-19	ASSIGNMENT OF IDT Q's	SLOW LEARNERS CLASS (SLC)	PASS	-
2.	196085	SANTHOSHKUMAR T	Unable to present what he studied.	Santh 30-9-19	ASSIGNMENT	SLOW LEARNERS CLASS (SLC)	PASS	-
3.	196086	SARANRRAJ A	Lack of preparation	Saran 30/9/19	ASSIGNMENT	SLC	PASS	-
4.	196097	SHAMEER N	Lack of preparation	Shameer 30-09-19	ASSIGNMENT	SLC	FAIL	Additional Coaching reqd
5.	196101	SRIRAM M	Improper sketches and answers	Sriram 30/9/19	ASSIGNMENT	SLC	PASS	-
6.	196126	MARIYA HENDRY PRABHU	Poor presentation in IA Test	Mariya Hendry 30/9/19	ASSIGNMENT	SLC	PASS	-

SLC - SLOW LEARNERS CLASS

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S.NO	BATCH NO	NAME OF THE STUDENT	CAUSES FOR FAILURE	SIGNATURE OF THE STUDENT WITH DATE	CORRECTIVE ACTION TAKEN	PREVENTIVE ACTION TAKEN	FOLLOWUP STATUS	REMARKS OF THE HOD
7.	196130	SRIRAM A	Lack of preparation	A. Sriram 30/9/19	ASSIGNMENT	SLC	PASS	—
8.	196128	PRASANNA M	Unable to recognise concepts	M. Prasanna	ASSIGNMENT	SLC	PASS	—
9.	196140	VIGNESH M	Lack of preparation	30/9/19	ASSIGNMENT	SLC	PASS	—
10.	196132	VENKITA KRISHNAN S	Lack of preparation	S. Venkita 30/9/19	ASSIGNMENT	SLC	PASS	—

SLC – SLOW LEARNERS CLASS

M. Sriram 01/10/2019.

Signature of the Faculty Member

Signature of the HoD/MECH

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5 Mark entry based on CO

ACADEMIC YEAR 2019-2020 – EVEN INTERNAL ASSESSMENT TEST - I ME8651 - DESIGN OF TRANSMISSION SYSTEM SEC-A

S.no	Batchno	Register Number	Name	C1 [32]	C2 [68]	Total Marks [100]
1	206001	813817114001	AHAMED KHABEER. M	24	20	44
2	206002	813817114002	AJAI. S	24	38	62
3	206004	813817114004	AJAY ARVIND. A	26	16	42
4	206005	813817114003	AJAY. S	16	40	56
5	206006	813817114005	AJITH. V	8	16	24
6	206007	813817114006	ALTHUMAS. A	18	34	52
7	206008	813817114007	AMRISHWARAN. A	32	44	76
8	206009	813817114008	AMRITH. S	32	30	62
9	206010	813817114009	ANANTHAKUMAR. S	20	24	44
10	206012	813817114011	ARAVINDHAN. B	26	44	70
11	206014	813817114013	ARIVARAN. K V	32	48	80
12	206015	813817114014	ARJUN. R	28	42	70
13	206016	813817114015	ARUN. A	30	44	74
14	206017	813817114016	ASHWIN. S	4	40	44
15	206018	813817114017	ASHWIN. S S	26	50	76
16	206019	813817114018	ASWIN. S	28	16	44
17	206020	813817114020	BALA KEERTHANA. P	26	54	80
18	206021	813817114019	BALAGURU. N	20	30	50
19	206022	813817114021	BALAKRISHNAN. R	20	30	50
20	206023	813817114022	DARANIDARAN. R	28	46	74
21	206024	813817114023	DEENADHAYALAN. R	26	20	46
22	206025	813817114024	DHARMESHWARAN. D M	18	46	64
23	206026	813817114025	DHARSHAN BABU. S N	10	32	42
24	206027	813817114026	DINESH KARTHICK. T	26	44	70
25	206028	813817114027	DIWAKAR. B	26	34	60
26	206029	813817114028	DIWAKAR. K	28	54	82
27	206030	813817114029	ESWARAN. M	28	28	56
28	206031	813817114030	HARIHARAN. L	20	30	50
29	206032	813817114031	HARIRAJ. I	28	38	66
30	206033	813817114032	HARISH. M	28	26	54
31	206034	813817114033	IJAS AHAMED. J	28	16	44
32	206036	813817114035	IQBAL FAYAS. A	24	18	42
33	206038	813817114036	JACKABBELIX. D	10	40	50
34	206040	813817114037	JAI KISHORE. S V	30	22	52

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S.no	Batchno	Register Number	Name	C1 out of [32]	C2 out of [68]	Total Marks Secured (out of 100)
36	206043	813817114040	JERALD JOSHWA. G	18	46	64
37	206044	813817114041	JESWIN JACOUS. M	28	32	60
38	206045	813817114042	JOEHIN ARO. B	12	8	20
40	206047	813817114044	KARTHICK. K .R	30	34	64
41	206048	813817114045	KARTHIK. A	24	28	52
42	206049	813817114047	KARTHIKEYAN. S	14	42	56
43	206050	813817114048	KARTHIKEYAN. V	22	36	58
44	206051	813817114046	KARTHIKEYAN.K	18	32	50
45	206052	813817114049	KATHIRAVAN. K	24	28	52
46	206053	813817114050	KEVIN. H M S	20	46	66
47	206054	813817114051	KIRUBADHARSAN. M	28	26	54
48	206055	813817114052	KISHORE. S	32	50	82
49	206056	813817114053	KRISHNA PRASAD. M	30	30	60
50	206057	813817114054	MAHALAKSHMI. M	32	60	92
51	206058	813817114055	MANIKANDAN. M R	20	34	54
52	206059	813817114056	MANOJKUMAR. P	2	32	34
53	206060	813817114057	MOHAMED AJMAL. M	30	42	72
54	206061	813817114058	MOHAMED NIZAR. A	18	32	50
55	206062	813817114059	MOHAMED SAMEER IRFAAN	32	32	64
56	206126	813817114306	BENADICT RAJ. A	16	34	50
57	206129	813817114312	GOWSIK SIBI. K	20	34	54
58	206131	813817114314	KARTHICK. S	6	16	22
59	206132	813817114324	SUKESH. V	22	38	60
60	206133	813817114309	ELANCHELIAN. R	6	32	38
61	206136	813817114308	DURAAI AYYASWAMY. S	24	40	64
62	206138	813817114304	ARUNKUMAR. P	10	18	28
63	206140	813817114317	MOHANA SUNDHARAM. B	32	62	94
64	206142	813817114305	ASHOK. C	14	20	34
65	206144	813817114323	SUDHARSAN. G	32	36	68
66	206146	813817114326	YUGESH. S G	20	32	52
67	206148	813817114316	KISHORE. K	14	36	50

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6. MAKEUP Test Schedule

SARANATHAN COLLEGE OF ENGINEERING

28.08.2017

STAFF CIRCULAR

Retest-- II for Internal Assessment Test- II for II, III ,IV B.E / B.Tech classes will commence from 30.08.2017 (Wednesday) as per the dinetable mentioned.

S.No.	DATE	SUBJECT
1.	30.08.2017	SUBJECT 1 (22.08.2017) FN
2.	31.08.2017	SUBJECT 2 (22.08.2017) AN
3.	01.09.2017	SUBJECT 3 (23.08.2017) FN
4.	04.09.2017	SUBJECT 4 (23.08.2017) AN
5.	05.09.2017	SUBJECT 5 (24.08.2017) FN
6.	07.09.2017	SUBJECT 6 (24.08.2017) AN

As per the direction from the principal the fine amount of Rs 50 will be collected only from those students who have secured less than 50% or absent in I.A Test- II. However the students who have secured between 50% and 60% in I.A Test- II must attend the Re-Test II along with failures and absentees without fail.

Note: The absentees with genuine reason and with proper permission can be exempted from the fine amount only.

The minimum pass mark for Retest will be 60 out of 100.

Test duration: 5.00 p.m. to 6.30 p.m. ($1\frac{1}{2}$ Hrs)

Max Marks : 50

PRINCIPAL
PRINCIPAL
Saranathan College of Engineering
TRICHY - 12.

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7. Makeup Test Sample QP

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Make Up Test - I			Date/Session	01.08.18	Marks	50
Course code	ME6503	Course Title	Design of Machine Elements			
Batch No.		Duration	90 mins	Academic Year	2018 - 2019	
Year	Third Year	Semester/Section	Fifth / A & B	Department	Mechanical	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	List some factors that influence machine design.	C303.1	U
2	How is factor of safety defined for brittle and ductile materials?	C303.1	U & R
3	Identify the steel designated as 30C8 as per BIS.	C303.1	R
4	Define stress concentration and stress concentration factor.	C303.1	R
5	Define principal plane and principal stress.	C303.2	R
6	Differentiate between static and variable stresses.	C303.2	U & R
7	Define amplitude stress and stress ratio. What is the value of stress ratio for a cyclic stress?	C303.2	R
8	What is an S-N Curve?	C303.2	U
9	Define endurance limit. What are the factors affecting endurance strength?	C303.2	R
10	A flat bar 30mm wide and 12mm thick is loaded by a tensile load of 85kN. The material is made up of mild steel with yield point stress of 315 N/mm^2. Find the factor of safety based on yield point	C303.2	A

Part – B

(Answer all the questions 2 x 10 = 20marks

Q. No.	Questions	CO	Skills
11 a	An overhang crank with pin and shaft is shown in Figure1. A tangential loadof 15 kN acts on the crank pin. Determine the maximum principal stress and the maximum shearstress at the centre of the crankshaft bearing.	C303.1	A
	Or		
12	A simply supported shaft 30mm diameter and 200mm long is acted upon by a sudden load of 1000N at its free mid span. This load falls freely from a height of 2mm. Find the impact stress produced in the shaft. Take $E=2x10^5$MPa.	C303.1	A
13	A crane hook has a trapezoidal section at A-A as shown in Figure 2. Find the maximum stress atpoints P and Q.	C303.1	A
	Or		
14	A steel member is subjected to a 3-D stress system and resulting principal stress are 120N/mm²tension, 80N/mm²and 40N/mm²compression. If the proportional limit of the material in simple tensionis 280N/mm²and its poison's ratio is 0.3.Determine the factor of safety according to (a) Maximumprincipal stress theory (b) Maximum principal strain theory (c) Maximum shear stress theory.	C303.1	A

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Part – C

(Answer all the questions 1 x 10 = 10marks)

Q. No.	Questions	CO	Skills
15	The bending stress in a machine part fluctuates between a tensile stress of 280N/mm2 and a compressive stress of 140N/mm^2. What should be the minimum ultimate tensile strength of this part tocarry this fluctuation indefinitely according to (i) Goodman's formula (ii) Soderberg formula Factor ofsafety is 1. 75. Assume that the yield point is never likely to be less than 55% of theUltimate tensile strength or greater than 93 % of it.	C303.2	AZ
	Or		
16	A transmission of shaft made C45 steel subjected to a fluctuating torque varying from -100N-m to+500N-m.Also a fluctuating bending moment acts on the shaft which varies from +500N-m to -500Nm.Let the stress concentration factor be 2. The shaft is machined for a factor of safety 1.5.Determine therequired diameter of the shaft.	C303.2	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

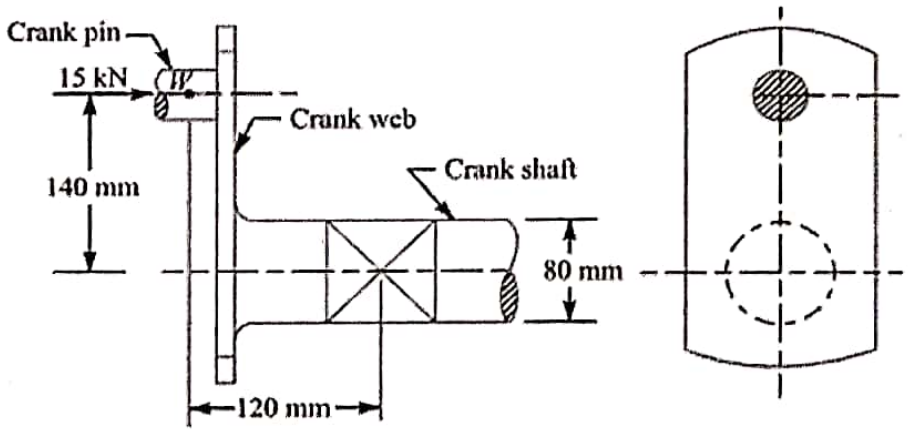

Figure1

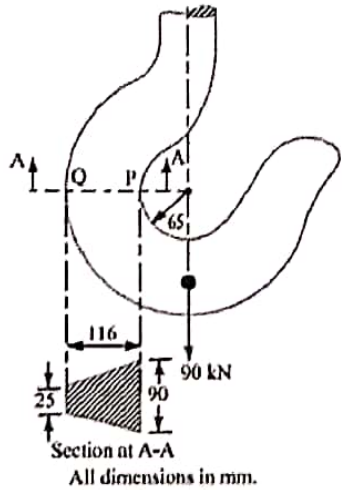

Figure2

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8. Remedial class schedule

SARANATHAN COLLEGE OF ENGINEERING, TIRUCHIRAPPALLI – 12
DEPARTMENT OF MECHANICAL ENGINEERING

Remedial class schedule for III Year (A & B)

S.No	Date	Session	Sub. code	Subject Name
1	09/10/17	FN	ME 6503	Design of Machine Elements
2	10/10/17	FN	ME6505	Dynamics of Machines
3	11/10/17	FN	ME 6502	Heat & Mass Transfer
4	12/10/17	FN	GE6075	Professional Ethics in Engineering
5	13/10/17	FN	ME 6501	Computer Aided Design
6	14/10/17	FN	ME 6504	Metrology & Measurements

HOD/MECH

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1 & 2 IA Test Circular

I MBA / I SEM / I.A-1 (BATCH 2023-25)

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST - I

I MBA (2023 – 2025) / SEMESTER - I

S. No	DATE	SUBJECT CODE	SUBJECT
01	09.10.23	BA4101	Statistics for Management
02	10.10.23	BA4102	Management Concepts and Organizational Behavior
03	11.10.23	BA4103	Managerial Economics
04	12.10.23	BA4104	Accounting for Decision Making
05	13.10.23	BA4105	Legal Aspects of Business
06	16.10.23	BA4106	Information Management
07	17.10.23	BA4032	Entrepreneurship Development

HOD/MBA

DURATION: 1 Hrs & 30 Min

FN: 9.30 AM to 11.00 AM

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MBA / I SEM / I.A-2 (BATCH 2023-25)

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST - II

I MBA (2023 – 2025) / SEMESTER - I

S. No	DATE	SUBJECT CODE	SUBJECT
01	20.11.2023	BA4101	Statistics for Management
02	21.11.2023	BA4102	Management Concepts and Organizational Behavior
03	22.11.2023	BA4103	Managerial Economics
04	23.11.2023	BA4104	Accounting for Decision Making
05	24.11.2023	BA4105	Legal Aspects of Business
06	25.11.2023	BA4106	Information Management
07	27.11.2023	BA4032	Entrepreneurship Development

HOD/MBA

DURATION: 1 Hrs & 30 Min

FN: 9.30 AM to 11.00 AM

I MBA / I SEM / MODEL EXAM / TIME TABLE (BATCH 2023-25)

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR MODEL EXAMINATION

I MBA (2023 – 2025) / SEMESTER - I

S. No	DATE	SUBJECT CODE	SUBJECT
01	20.12.23	BA4102	Management Concepts and Organizational Behavior
02	21.12.23	BA4103	Managerial Economics
03	22.12.23	BA4104	Accounting for Decision Making
04	26.12.23	BA4105	Legal Aspects of Business
05	27.12.23	BA4106	Information Management
06	28.12.23	BA4032	Entrepreneurship Development
07	29.12.23	BA4101	Statistics for Management

HOD/MBA

11/12/23

DURATION: 3 HOURS

FN: 9.30 AM to 12.30 AM

I MBA / III SEM / I.A-1 (BATCH 2022-24)

TIME TABLE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST – I

II MBA (2022 – 2024) / SEMESTER - III

S. No	DATE	SUBJECT CODE	SUBJECT
1.	11.10.23	BA4301	Strategic Management
2.	12.10.23	BA4302	International Business
3.	13.10.23	BA4008	Retail Marketing
4.	16.10.23	BA4010	Integrated Marketing Communication
5.	17.10.23	BA4011	Services Marketing
6.	18.10.23	BA4001	Security Analysis and Portfolio Management
7.	19.10.23	BA4002	Financial Markets
8.	20.10.23	BA4003	Banking and Financial Services
9.	25.10.23	BA4015/BA4022	Strategic Human Resource Management / Quality Management
10.	26.10.23	BA4016/BA4021	Industrial relations and labour legislations / Supply Chain Management
11.	27.10.23	BA4019/BA4026	Reward and Compensation Management / Project Management

HOD/MBA

DURATION: 1 Hrs 30 Min

FN : 9.30 AM to 11.00 AM

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II MBA / III SEM / I.A-2 (BATCH 2022-24)

TIME TABLE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST – II

II MBA (2022 – 2024) / SEMESTER - III

S. No	DATE	SUBJECT CODE	SUBJECT
1.	27.11.23	BA4301	Strategic Management
2.	28.11.23	BA4302	International Business
3.	29.11.23	BA4008	Retail Marketing
4.	30.11.23	BA4010	Integrated Marketing Communication
5.	01.12.23	BA4011	Services Marketing
6.	04.12.23	BA4001	Security Analysis and Portfolio Management
7.	05.12.23	BA4002	Financial Markets
8.	06.12.23	BA4003	Banking and Financial Services
9.	07.12.23	BA4015/BA4022	Strategic Human Resource Management / Quality Management
10.	08.12.23	BA4016/BA4021	Industrial relations and labour legislations / Supply Chain Management
11.	09.12.23	BA4019/BA4026	Reward and Compensation Management / Project Management

HOD/MBA

DURATION: 1 Hrs 30 Min

FN : 9.30 AM to 11.00 AM

II MBA / III SEM / MODEL EXAM (BATCH 2022-24)

TIME TABLE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST – II (REVISED)

II MBA (2022 – 2024) / SEMESTER - III

S. No	DATE	SUBJECT CODE	SUBJECT
1.	27.11.23	BA4301	Strategic Management
2.	28.11.23	BA4302	International Business
3.	29.11.23	BA4008	Retail Marketing
4.	30.11.23	BA4010	Integrated Marketing Communication
5.	01.12.23	BA4011	Services Marketing
6.	02.12.23	BA4001	Security Analysis and Portfolio Management
7.	04.12.23	BA4002	Financial Markets
8.	05.12.23	BA4003	Banking and Financial Services
9.	06.12.23	BA4015/BA4022	Strategic Human Resource Management / Quality Management
10.	07.12.23	BA4016/BA4021	Industrial relations and labour legislations / Supply Chain Management
11.	08.12.23	BA4019/BA4026	Reward and Compensation Management / Project Management

HOD/MBA

DURATION: 1 Hrs 30 Min

FN : 9.30 AM to 11.00 AM

I MBA / II SEM / I.A-1 (BATCH 2023-25)

TIME TABLE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST – I (REVISED)

I MBA (2023 – 2025) / SEMESTER - II

S. No	DATE	SUBJECT CODE	SUBJECT
01	25.03.24	BA4201	Quantitative Techniques for Decision Making
02	26.03.24	BA4203	Human Resource Management
03	27.03.24	BA4204	Operations Management
04	28.03.24	BA4205	Business Research Methods
05	01.04.24	BA4206	Business Analytics
06	02.04.24	BA4207	Marketing Management
07	03.04.24	BA4202	Financial Management

HOD/MBA

19/3/24

DURATION: 01 Hr & 30 Mts

FN: 9.30 AM to 11.00 AM

I MBA / II SEM / I.A-2 (BATCH 2023-25)

TIME TABLE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR INTERNAL ASSESSMENT TEST – II

I MBA (2023 – 2025) / SEMESTER - II

S. No	DATE	SUBJECT CODE	SUBJECT
01	29.04.24	BA4201	Quantitative Techniques for Decision Making
02	30.04.24	BA4203	Human Resource Management
03	02.05.24	BA4204	Operations Management
04	03.05.24	BA4205	Business Research Methods
05	04.05.24	BA4206	Business Analytics
06	06.05.24	BA4207	Marketing Management
07	07.05.24	BA4202	Financial Management

HOD/MBA

DURATION: 01 Hr & 30 Mts

FN: 9.30 AM to 11.00 AM

I MBA / II SEM / MODEL EXAM (BATCH 2023-25)

TIME TABLE

SARANATHAN COLLEGE OF ENGINEERING

DEPARTMENT OF MANAGEMENT STUDIES

TIME TABLE FOR MODEL EXAMINATION

I MBA (2023 – 2025) / SEMESTER - II

S. No	DATE	SUBJECT CODE	SUBJECT
01	29.05.24	BA4201	Quantitative Techniques for Decision Making
02	30.05.24	BA4202	Financial Management
03	31.05.24	BA4203	Human Resource Management
04	03.06.24	BA4204	Operations Management
05	04.06.24	BA4205	Business Research Methods
06	05.06.24	BA4206	Business Analytics
07	06.06.24	BA4207	Marketing Management

HOD/MBA

DURATION: 03 Hrs

FN: 1.30 PM to 04.30 PM

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	19.10.23	Marks	50
Course code	BA 4002	**Course Title**	FINANCIAL MARKETS			
Batch No.		**Duration**	90 mins	**Academic Year**	2022-23	
Year	II MBA	**Semester**	III	**Department**	MBA	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is Financial System?	1	U&C
2	Define Financial Market.	1	U&C
3	State the functions of financial Markets.	1	U&C
4	Define the term OTCEI.	1	U&C
5	What is Derivatives Markets?	1	U&C
6	What are the functions of Capital Market?	1	U&C
7	State the Role of RBI in Financial market.	1	U&C
8	What is CCIL?	1	U&C
9	State the classifications of Financial Markets.	2	U&C
10	What are the other types of financial markets?	2	U&C

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Differentiate between Capital Market and Money market.	1	U&C
	OR		
12	Discuss the functions, importance and limitations of money market? Briefly Mention the instruments used in money market?	1	U&C
13	Explain the major Participants and Players in Financial Market.	2	U&C
	OR		
14	What are the instruments used in Financial Markets?	2	U&C

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Briefly explain the structure of Financial Markets.	**6**	**U**

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	16.10.23	Marks	50
Course code	BA4010	**Course Title**	**Integrated Marketing Communication**			
Batch No.		**Duration**	90 mins	**Academic Year**		2023-24
Year	II MBA	**Semester/ Section**	III/A	**Department**		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Integrated Marketing Communication.	C1	U&A
2	Write any two objectives of IMC?	C1	U&A
3	Explain Advertisement Campaigns?	C1	U&A
4	What is sales promotion?	C1	U&A
5	Explain reach and frequency in advertisement?	C1	U&A
6	Explain Public Relation.	C1	U&A
7	What is Publicity?	C1	U&A
8	Explain Market Segmentation?	C2	U&A
9	Explain various forms of sales promotion?	C2	U&A
10	Define Advertisement.	C2	U&A

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Explain the various forms of setting the Advertisement objectives	C1	U&A
12	State the need and importance of IMC?	C1	U&A
13	Explain the reasons for growth and importance of Integrated Marketing Communications. How does it differ from traditional advertising and promotion?	C2	U&A
14	Discuss the role of advertising in modern business world	C2	U&A

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Develop a media strategy for advertising a photo copier machine	**C6**	**A**

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/Session	08-12-2023 / FN	Marks	50
Course code	BA 4026	**Course Title**	Project Management			
Batch No		**Duration**	90 mins	**Academic Year**	2023 - 2024	
Year	II	**Semester/Section**	III / A	**Department**	MBA	

Part - A
(Answer all the questions 10 x 2 = 20 Marks)

Q. No.	Questions	CO	Skills
1.	List the various types of planning process in Project Management?	2	A
2.	Explain the methods of Scheduling Projects.	2	AZ
3.	What is Budget Uncertainty?	2	R
4.	What are the four types of Risk Mitigation?	2	R
5.	What do you mean by Project Risk?	2	R
6.	Explain the term Scheduling.	3	E
7.	What are the things to be included in a Gantt Chart?	3	R
8.	Define the terms Activity and Slack.	3	R
9.	How does resource leveling affect the critical path?	3	U
10.	Why crashing is needed Project Management?	3	U

Part - B
(Answer all the questions 2 x 10 = 20 Marks)

Q. No.	Questions	CO	Skills
11.	List out the stages of Project Planning. Explain the different tools of Project Planning.	2	A
	OR		
12.	Explain the different methods of Estimating Project Cost.	2	E
13.	Differentiate between PERT and CPM with its applications illustrations.	3	A
	OR		
14.	Write short notes on Resource Loading and Leveling.	3	E

Part - C
(Answer all the questions 1 x 10 = 10 Marks)

<table>
<tr><th>Q. No.</th><th>Questions</th><th>CO</th><th>Skills</th></tr>
<tr><td>15.</td><td>Explain the concept of Goldratt’s Critical Chain in Project Scheduling.</td><td>3</td><td>E</td></tr>
<tr><td colspan="4">OR</td></tr>
<tr><td>16.</td><td>The details of the project are shown below:
(i) Draw the Project Network.
(ii) Find the Critical Path and the corresponding Project Completion Time.
(iii) Draw the Gantt Chart of this project to represent the Critical and No-Critical Activities.

<table><tr><th>Activity</th><th>Immediate Predecessor</th><th>Duration (Weeks)</th></tr><tr><td>A</td><td>-</td><td>10</td></tr><tr><td>B</td><td>-</td><td>12</td></tr><tr><td>C</td><td>-</td><td>9</td></tr><tr><td>D</td><td>A</td><td>8</td></tr><tr><td>E</td><td>A</td><td>5</td></tr><tr><td>F</td><td>B</td><td>13</td></tr><tr><td>G</td><td>C</td><td>6</td></tr><tr><td>H</td><td>C</td><td>4</td></tr><tr><td>I</td><td>D</td><td>15</td></tr><tr><td>J</td><td>E, F, G</td><td>7</td></tr><tr><td>K</td><td>H</td><td>9</td></tr></table></td><td>3</td><td>AZ</td></tr>
</table>

Bloom’s Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/Session	07/12/23 / FN	Marks	50
Course code	BA4022	Course Title	Quality Management			
Batch No		Duration	90 mins	Academic Year	2023 - 2024	
Year	M.B.A II	Semester	III	Department	M.B.A	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Compare X bar and R chart with p chart	C404.1	R
2	What is the purpose of p chart	C404.1	R
3	Explain different types of maintenance	C404.1	U
4	List out four development stages of QM	C404.1	U
5	Name some benefits of TQM.	C404.1	R
6	What do you mean by process capability index	C404.1	U
7	Define specification limit	C404.2	U
8	Define reliability	C404.2	R
9	What do you mean by six sigma	C404.2	U
10	Define redundancy	C404.2	U

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	In the manufacturing industry, plate thickness is one of the important CTQ factors. During the Measure phase, the project team performed the process capability study and identified that the process was not capable (2 sigmas). In the Analyze phase, they collected 20 sets of plate thickness samples with a subgroup size of 4.	C404.3	R

Sample	Measured values			
	1	2	3	4
1	44	26	24	34
2	50	48	51	43
3	32	28	26	22
4	52	55	56	44
5	16	16	21	26
6	36	36	35	31
7	21	22	18	21
8	29	21	23	22
9	26	46	44	14
10	24	22	22	44
11	18	24	24	49
12	24	20	26	23
13	19	21	27	28
14	8	11	12	12
15	24	18	27	24
16	56	52	56	50
17	32	22	18	25
18	8	12	11	17
19	51	54	52	49
20	30	28	35	22

	or		
12	Compare the control charts for attributes and control chart for variables	C404.3	U
13	What are the benefits of implementing TPM	C404.3	U
	or		
14	Explain in detail the process of six sigma	C404.3	U
	Part – C **(Answer all the questions 1 x 10 = 10marks)**		
15	List out the steps in conducting g a process capability study	C404.3	U
	or		
16	Explain in details in process capability indices	C404.3	R

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

MODEL EXAMINATION			Date/ Session	27.12.2023	Marks	100
Course code	BA 4008	Course Title	RETAIL MARKETING			
Batch No.		Duration	3 Hours	Academic Year		2023-24
Year	II MBA	Semester/ Section	III/A	Department		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Retailing.	C1	U&A
2	List the functions of a Retailer?	C1	U&A
3	Define unorganized retailing.	C2	U&A
4	What is merchandising?	C2	U&A
5	What is mean by positioning of retail store?	C3	U&A
6	What is store atmosphere?	C3	U&A
7	What is mean by e-Retailing?	C4	U&A
8	Define retail advertising.	C4	U&A
9	What are the factors influencing retail shopper behavior?	C5	U&A
10	What is sales force?	C5	U&A

Part – B

(Answer all the questions 5 x 13 = 65 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 (a)	Discuss the challenges and opportunities faced by retailer in India	C1	U&A
	OR		
(b)	Explain in detail about the evolution of retail in India	C1	U&A
12(a)	Explain in detail about the characteristics of organized retail format	C2	U&A
	OR		
(b)	What are the factors that a retailer must take into consideration before going international	C2	U&A
13 (a)	What are the factors that a retailer need to take into account while choosing a location for a retail store	C3	U&A
	OR		
(b)	Discuss in detail about retail pricing decision	C3	U&A
14. (a)	Explain in detail about the Retail Supply Chain Management	C4	U&A
	OR		
(b)	Explain in detail about Visual Merchandising	C4	U&A
15 (a)	Explain the shopping decision process in retail	C5	U&A
	OR		
(b)	Explain in detail about Complaint management in Retail	C5	U&A

Part – C

(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	A Retailer Plans to open a new store near a University. It will specialize in collegiate merchandise such as T- Shirts and other related accessories and shirts. Develop an integrated marketing communication programme for the	C6	A

	retailer. What specific media should the new store use to capture the university market? (OR) (b) Select a Jewellery shop in an enclosed mall and one in a neighborhood centre. List the Pros and Corns for each location. Which location is most desirable?		

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering
Tiruchirapalli

MODEL EXAMINATION			Date/ Session	11/01/24/FN	Marks	100
Course code	BA 4019	**Course Title**	**REWARDS & COMPENSATION MANAGEMENT**			
Batch No.		**Duration**	3 Hours	**Academic Year**		2023-24
Year	II MBA	**Semester/ Section**	III/A	**Department**		MBA

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What do you mean by base pay?	C1	U&A
2	Recite the term Dearness allowance.	C1	U&A
3	What is market analysis in labor market?	C2	U&A
4	What do you mean by labor supply and labor demand?	C2	U&A
5	Memorize the meaning of Non-financial rewards.	C3	U&A
6	State two difference between reward and compensation.	C3	U&A
7	Quote the meaning of executive compensation.	C4	U&A
8	Label the meaning of sales incentives.	C4	U&A
9	Recall the term competency based pay.	C5	U&A
10	Define ESOPs	C5	U&A

Part – B
(Answer all the questions 5 x 13 = 65 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 (a)	Discuss the significance of compensation management in modern organizations? in the objectives of compensation.	C1	U&A
	OR		
(b)	Analyze the types of wages in India.	C1	U&A
12 (a)	Enumerate the impact of unemployment in labor market.	C2	U&A
	OR		
(b)	"The compensation trade-off is the big challenge in today's world" Discuss.	C2	U&A
13 (a)	(i) Enumerate the benefits of a total reward approach. (ii) Express the types of employee benefits.	C3	U&A
	OR		
(b)	Illustrate the statutory employee benefits in India.	C3	U&A
14 (a)	Infer the marginal productivity theory human capital theory.	C4	U&A
	OR		
(b)	Analyze the approaches of International compensation.	C4	U&A
15 (a)	Enumerate the metrics effective performance modeling used by HR managers.	C5	U&A
	OR		
(b)	Whatdo you mean by Profit-Sharing Plan and explain the types of plan with an example.	C5	U&A

Part – C
(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	(a) Critically evaluate the different important factors that shape the external competitiveness in deciding the executive compensation. Give Example from any Industry of your choice.	C6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	01.04.24/FN	Marks	50
Course code	BA4206	**Course Title**	BUSINESS ANALYTICS			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-2025	
Year	I MBA	**Semester**	II	**Department**	MBA	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What do you mean by Business Analytics?	1	U&A
2	Define the Challenges of BA.	1	U&A
3	Define Business intelligence (BI)?	1	U&C
4	What is data Mining and big Data?	1	U&C
5	Define a Information Repository.	1	U&C
6	What is data cleansing and Data visualization ?	1	U&C
7	Elucidate the steps involved in business analytics.	1	U&C
8	Distinguish between primary and secondary data.	2	U&C
9	What is a competitive advantage ?	2	U&R
10	How do you interconnect AI and Business Analytics?	2	U&A

Part – B

(Answer all the questions 2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain the process of business analytics.	1	U&R
	OR		
12	Explain about the importance/advantages of Business Analytics.	1	U&C
13	Explain briefly about the types of business analytics.	2	U&R
	OR		
14	What are the components of Business Analytics?	2	U&A

Part – C

(Answer all the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	List out some 10 terminologies and explain the same	1	AZ

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question.

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	26.03.24/FN	Marks	50
Course code	BA 4203	**Course Title**	HUMAN RESOURCE MANAGEMENT			
Batch No.		**Duration**	90 mins	**Academic Year**	2023-24	
Year	I MBA	**Semester**	II	**Department**	MBA	

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skill
1	Define Human Resource Management	1	U&C
2	Explain Job Description?	1	U&C
3	Differentiate HRM and Personnel Management?	1	U&C
4	What is mean by job Enlargement?	1	U&C
5	Explain Job Specification	1	U&C
6	Write any two objectives of HRM?	1	U&C
7	Explain any two HR Policies.	1	U&C
8	Define man power planning.	2	U&C
9	Explain internal sources of Recruitment?	2	U&C
10	Define Human Resource Audit.	2	U&C

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Explain the functions of Human Resource Management with business examples	1	U&C
	OR		
12	Briefly explain the objectives and Policies of HRM?	1	U&C
13	Explain in detail about Computer Applications in HR?	2	U&C
	OR		
14	Explain – Job Analysis Process in Detail?	2	U&C

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	**Competency-Based Selection**: A US based company needs over 100 new executives each year to meet its worldwide growth objectives. However, the average tenure of the executives it hired from outside was only three years. Those who grew within the company and made it to the executive ranks typically lasted four years, a slightly better record. To identify the characteristics of those executives with the skills to implement the company's growth strategy and at the same time succeed in their unique corporate culture, this company engaged a consulting firm as partner in its competency-based selection efforts. The result of the company previously cited had a very interesting discovery after using the competency-based selection. They discovered that while the "outstanding" executives they identified were driven by the call to improve the bottom-line results, these outstanding executives were not the ruthless and	6	U

	aggressive group as known in the market place. This group of outstanding executives identified by the company had incredibly positive respect for individuals. They were very optimistic about what they and others could achieve, and were motivated by forming strong personal relationships. Other competencies the company identified as contributing to success included high levels of "ego maturity" and "genuineness", indicating that they acted consistently with how they thought and felt. After uncovering the characteristics that determined success in the organization, it became apparent that many of the outside hires were mismatched with the company's culture and hence the high failure rates. Upon reflection on the results, the top management team concluded that executives who "grew up" in bureaucratic, political organizations did not fare well in this company because they focused too heavily on managing process as opposed to managing the business. Experienced external executives who came in and expected their position power to yield results instead of person-relationships were also often rejected. The findings changed the way the company recruited. They were able to better identify the kind of executives who would fit into their company's culture. They discarded traditional interviews and began using structured interviews based on critical incidents which better identified characteristics that made for a good fit with the organization, thus leading to superior job performance. The end result was a much lower turnover rate -attrition declined by 80 per cent. As an HR Person how will you approach this case		

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date/Session	03.05.24/FN	Marks	50
Course code	BA 4205	Course Title	BUSINESS RESEARCH METHODS			
Batch No.		Duration	90 mins	Academic Year	2023 – 2024	
Year	I MBA	Semester/Section	II/A	Department	MBA	

Part – A

(Answer all the questions 10 x 2 = 20marks)

Q. No.	Questions	CO	Skills
1	Explain the features of a good research design.	3	U&C
2	What is Validity of data?	3	U&C
3	What is Reliability of data?	3	U&C
4	Where nominal scale can be applied?	4	U&C
5	What are the guidelines to be followed while preparing a Questionnaire?	4	U&C
6	What is validity of findings?	4	U&C
7	What are the factors affecting validity of findings?	4	U&C
8	What are the different types of measurements of Scale?	4	U&C
9	Differentiate between Census and Sample.	4	U&C
10	Differentiate Qualitative & Quantitative data analyses with example.	4	U&C

Part – B

(Answer all the questions 2 x 10 = 20marks)

Q. No.	Questions	CO	Skills
11	Explain the Probabilistic and Non Probabilistic Sample types in detail	3	U&C
	Or		
12	What do you mean by research design? What are the steps involved in research design?	3	U&C
13	What do you mean by Scaling? Give Scaling Process. What are the different scaling Techniques used in Research?	4	U&C
	Or		
14	You are developing a questionnaire to measure the job satisfaction of the employees in a company to assess the validity of your questionnaire the chief research scientist of your company would like to use content validity, criterion validity, construct validity and face validity. Explain.	4	U&C

Part – C

(Answer all the questions 1 x 10 = 10marks)

	CASE STUDY	CO	Skills
15	What do you mean by Experimental research Design? Give different types of Experimental design.	6	A
	Or		
16	Construct a Questionnaire to assess the service quality of Pantaloon Retail Apparel store in Delhi. The questionnaire should contain Socio demographic variables and with various dimensions focusing towards services.	6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	06.05.24/FN	Marks	50
Course code	BA 4207	Course Title	MARKETING MANAGEMENT			
Batch No.		Duration	90 mins	Academic Year		2023-24
Year	I MBA	Semester/ Section	II/A	Department		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What do you mean by Market Segmentation?	3	U&C
2	Define Market Targeting	3	U&C
3	What is re positioning?	3	U&C
4	What is Product Mix?	3	U&C
5	What is consistency of product?	3	U&C
6	Define Promotion.	3	U&C
7	Define Advertising.	3	U&C
8	What is consumer sales promotion?	3	U&C
9	What is personal selling?	3	U&C
10	What is direct marketing?	3	U&C

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Discuss in detail about the basis for Segmenting Consumer Market?	3	U&C
	OR		
12	Explain in detail about the different kinds of pricing available to a manufacturer?	3	U&C
13	Explain in detail about Product life cycle?	3	U&C
	OR		
14	Explain in detail about New Product Development?	3	U&C

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Read the case below and answer the questions given at the end of the case : **NIKHAR DETERGENT: POSITIONING AND BRANDING OF DETERGENT:** Mr. Naresh Kumar started a detergent making unit in a small place close to Delhi. He was having experience in the production of the detergent and was not experienced in its marketing. He wanted to market this product to rural areas of Haryana and other villages close to Delhi. In an increasing age of competition, the people can distinguish the products based on its brand name and qualities. In rural areas, people want branded detergents, as detergents have started replacing soaps for washing clothes-because of convenience and economy. You have been appointed as a Product Manager by Mr. Naresh Kumar to create a product marketing plan to market the detergent in rural areas of Haryana and Delhi. **Questions :** **i) Suggest suitable ways to Brand the detergent and ways to Position the same in rural areas. (7)** **ii) Suggest a suitable marketing program to build the sale of this detergent in the rural areas as identified. (8)**	**6**	**A**

Saranathan College of Engineering
Tiruchirapalli

MODEL EXAMINATION			Date/ Session	04.06.2024/AN	Marks	100
Course code	BA4205	**Course Title**	BUSINESS RESEARCH METHODS			
Batch No.		**Duration**	3 Hours	**Academic Year**		2023-24
Year	I MBA	**Semester/ Section**	II/A	**Department**		MBA

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Business research.	C1	U&A
2	What is Empirical research?	C1	U&A
3	What is internal and external validity?	C2	U&A
4	What is research design?	C2	U&A
5	Write examples for Primary and Secondary data.	C3	U&A
6	What is coding & editing of data?	C3	U&A
7	How will you validate your questionnaire?	C4	U&A
8	Define Multidimensional scaling.	C4	U&A
9	What is the significance of Readability in Report writing?	C5	U&A
10	What is APA? How will you cite it?	C5	U&A

Part – B
(Answer all the questions 5 x 13 = 65 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 (a)	Describe the various steps involved in the process of business research.	C1	U&A
	OR		
(b)	(a) Explain the Significance of Business Research (**7**) (b) What is research hypothesis? Give example. Explain the characteristics of good hypothesis. **(6)**	C1	U&A
12(a)	Explain the various types of Research Design and discuss the different types of experimental research design.	C2	U&A
	OR		
(b)	Explain the different scaling techniques with suitable examples. Also explain about Reliability and validity of the instrument.	C2	U&A
13 (a)	How will you construct and validate the questionnaire .Write in detail.	C3	U&A
	OR		
(b)	Explain the Probabilistic and Non probabilistic sampling methods	C3	U&A
14. (a)	Discuss the purpose and basic principles of Factor analysis. How do you interpret the results of factor analysis in SPSS?	C4	U&A
	OR		
(b)	Explain the various Multivariate techniques in detail.	C4	U&A
15 (a)	Describe the detailed contents of the research report. Give a detailed summary on designing the layout of the research report	C5	U&A
	OR		
(b)	(a) Explain the different types of report.(5) (b) Executive summary (3) (c) Ethics in research. (5)	C5	U&A

Part – C

(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	(a) You are investigating the use of mobile phones for online banking and want to estimate the sample phones in this way at an approximate 95% confidence level(z=1.96). Since no data are available on the proportion currently using their mobile phones you take the worst case scenario and set p = 0.5 (and therefore q = 1-0.5 = 0.5). As this is a preliminary study you are prepared to accept a margin of error of ± 4% (b) Compute the Sample Size for the same problem if N=1000. *or* From the following data calculate Co-efficient of rank correlation between X and Y. X: 115,109,112,87,96,120,98,100,99,118 Y : 75,73,85,70,76,82,65,73,68,80	C6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering
Tiruchirapalli

MODEL EXAMINATION			Date/ Session	01.07.2023	Marks	100
Course code	BA4205	**Course Title**	BUSINESS RESEARCH METHODS			
Batch No.		**Duration**	3 Hours	**Academic Year**		2022-23
Year	I MBA	**Semester/ Section**	II/A	**Department**		MBA

Part – A
(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Business research.	C1	U&A
2	What is Empirical research?	C1	U&A
3	What is internal and external validity?	C2	U&A
4	What is research design?	C2	U&A
5	Write examples for Primary and Secondary data.	C3	U&A
6	What is coding & editing of data?	C3	U&A
7	How will you validate your questionnaire?	C4	U&A
8	Define Multidimensional scaling.	C4	U&A
9	What is the significance of Readability in Report writing?	C5	U&A
10	What is APA? How will you cite it?	C5	U&A

Part – B
(Answer all the questions 5 x 13 = 65 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 (a)	Describe the various steps involved in the process of business research.	C1	U&A
	OR		
(b)	(a) Explain the Significance of Business Research (**7**) (b) What is research hypothesis? Give example. Explain the characteristics of good hypothesis. **(6)**	C1	U&A
12(a)	Explain the various types of Research Design and discuss the different types of experimental research design.	C2	U&A
	OR		
(b)	Explain the different scaling techniques with suitable examples. Also explain about Reliability and validity of the instrument.	C2	U&A
13 (a)	How will you construct and validate the questionnaire .Write in detail.	C3	U&A
	OR		
(b)	Explain the Probabilistic and Non probabilistic sampling methods	C3	U&A
14. (a)	Discuss the purpose and basic principles of Factor analysis. How do you interpret the results of factor analysis in SPSS?	C4	U&A
	OR		
(b)	Explain the various Multivariate techniques in detail.	C4	U&A
15 (a)	Describe the detailed contents of the research report. Give a detailed summary on designing the layout of the research report	C5	U&A
	OR		
(b)	(a) Explain the different types of report.(5) (b) Executive summary (3) (c) Ethics in research. (5)	C5	U&A

Part – C

(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	(a) You are investigating the use of mobile phones for online banking and want to estimate the sample phones in this way at an approximate 95% confidence level(z=1.96). Since no data are available on the proportion currently using their mobile phones you take the worst case scenario and set p = 0.5 (and therefore q = 1-0.5 = 0.5). As this is a preliminary study you are prepared to accept a margin of error of ± 4% (b) Compute the Sample Size for the same problem if N=1000. *or* From the following data calculate Co-efficient of rank correlation between X and Y. X: 115,109,112,87,96,120,98,100,99,118 Y : 75,73,85,70,76,82,65,73,68,80	C6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

MODEL EXAMINATION			Date/ Session	31.05.2024/AN	Marks	100
Course code	BA 4203	Course Title	HUMAN RESOURCE MANAGEMENT			
Batch No.		Duration	3 Hours	Academic Year		2023-24
Year	I MBA	Semester/ Section	II/A	Department		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define HRM	C1	U&A
2	Explain Human Resource Accounting?	C1	U&A
3	Explain Career anchor?	C2	U&A
4	State the importance of HR Planning?	C2	U&A
5	Induction- explain	C3	U&A
6	What is meant by Vestibule Training?	C3	U&A
7	Various forms of Separation – explain	C4	U&A
8	What is meant by reward?	C4	U&A
9	Explain Organizational Citizenship behavior?	C5	U&A
10	How to improve mentor and protégé relationship?	C5	U&A

Part – B

(Answer all the questions 5 x 13 = 65 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 (a)	Explain the importance of human factor and objectives and functions of human resource management?	C1	U&A
	OR		
(b)	Computer applications in HRM explain with suitable business examples?	C1	U&A
12(a)	Explain the process of Man power planning?	C2	U&A
	OR		
(b)	What are the various Modern methods or Appraisal?	C2	U&A
13 (a)	Explain various executive development programmes with suitable examples	C3	U&A
	OR		
(b)	In what way knowledge management is going to be helpful for self development?	C3	U&A
14. (a)	Explain various types of compensation plans?	C4	U&A
	OR		
(b)	Explain in detail Herzberg's two factor theory and Theory X and Y?	C4	U&A
15 (a)	What are the various methods to identify the causes for employees grievances and how to settle grievance	C5	U&A
	OR		
(b)	Explain in detail about the Employee Engagement Practices in deatil?	C5	U&A

Part – C

(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	Explain in detail about the various sources of recruitment and also the process of selection?	C3	U&A

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	17.10.23 (FN)	Marks	50
Course code	BA 4032	Course Title	ENTREPRENEURSHIP DEVELOPMENT			
Batch No.		Duration	90 mins	Academic Year		2023-24
Year	I	Semester/ Section	I/A	Department		MBA

Part – A

Answer ALL the questions (10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Entrepreneur.	1	U&A
2	State a few advantages of entrepreneurship.	1	U&A
3	Define Intrapreneur.	1	U&A
4	Define Rural entrepreneur	1	U&A
5	What do you mean by women entrepreneurship?	1	U&A
6	What are the problems faced by rural Entrepreneurs?	1	U&A
7	What are the different types of Entrepreneurs?	1	U&A
8	Distinguish between Entrepreneur and Intrapreneur.	1	U&A
9	What are the problems faced by women entrepreneurs?	1	U&A
10	Who is a social entrepreneur?	1	U&A

Part – B

Answer ALL the questions (2 x 10 = 20 marks)

Q. No.	Questions	CO	Skills
11	Explain the functions of an entrepreneur.	1	U&A
	(Or)		
12	What are the advantages and disadvantages of family business?	1	U&A
13	What are the characteristics of a successful entrepreneur?	1	U&A
	(Or)		
14	Explain the role of the Entrepreneurship in economic development.	1	U&A

Part – C

(Answer ALL the questions 1 x 10 = 10 marks)

Q. No.	Questions	CO	Skills
15	**Alok Dutta,MD/CEO, Silicon Networks Pvt. Ltd.** Alok Dutta founded Silicon Networks in 1990 when he was 28 years old. During the time of data collection he was 44 years old and married. He hailed from a Bengali Hindu family, but was brought up in Mumbai. Alok Dutta was not from any business community. None of his family members was involved in business activities. Alok Dutta completed his B.E. degree in Electronics and Communciations in 1985 from Birla Institute of Technology, Mesra. Later on, in 1987, he completed M.S. in Computer Engineering (with specialization in Micro Electronics) from Syracuse University, New York. After completing studies in the USA, he worked for two years in India as a System Analyst in the VLSI group of a reputed Indian ICT company. Alok Dutta hailed from an educated family. His father was a graduate in Chemical Engineering and had worked in the Chemical industry. His mother, who was a housewife, was also a graduate. His wife, who had done a Master's degree in Special Education, ran her own school in Mumbai.	**1**	**A**

	Silicon Networks was a company which was involved in VLSI Designing and Software Development. At the time of the interview, the company had around 100 employees of whom one-fourth were administrative staff and rest were technical staff. The organization also employed consultants. However, the number of consultants kept changing. Silicon Networks had three offices in Mumbai, two in the USA, and one in UK. In addition to having a large number of clients in the USA and UK, Silicon Networks had clients who were located in other countries like China (Hong Kong), Germany, Norway, and Taiwan. 1. Go through the case and analyse the factors making, "Mr. Alok Dutta", a successful Entrepreneur. 2. Also highlight the Personal Characteristics of Mr Alok Dutta.		

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - I			Date/ Session	13.10.23/FN	Marks	50
Course code	BA4105	**Course Title**	**LEGAL ASPECTS OF BUSINESS**			
Batch No.		**Duration**	90 min	**Academic Year**		**2023-24**
Year	I MBA	**Semester/ Section**	I/A	**Department**		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Contract	C1	U&A
2	What do you mean by quasi-contract?	C1	U&A
3	List any two differences between contract and agreement.	C1	U&A
4	What is a voidable contract?	C1	U&A
5	What is mean by contract of sale?	C1	U&A
6	What are the different types of goods?	C1	U&A
7	What is DOCTRINE OF CAVEAT – EMPTOR?	C1	U&A
8	What is a negotiable instrument?	C1	U&A
9	What is a bill of exchange	C1	U&A
10	Define cheque.	C1	U&A

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	What are the essential steps in Formation of a Contract	C1	U&A
	OR		
12	Explain in detail about the Breach of contract	C1	U&A
13	Who is an unpaid seller of goods and what are the rights against the goods	C1	U&A
	OR		
14	Explain in detail about the different types negotiable Instrument	C1	U&A

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	Is the promisor absolved from performing the contract in the following cases: (i) A music hall was agreed to be let out on certain dates but before those dates it was destroyed by fire (ii) An artist undertook to paint a picture for certain price, but before he could do so, he met with an accident and lost his eyes-sight. (iii) "A" entered into a contract with "B" on 1st March for the supply of certain imported goods in the month of September of the same year. In June by the act of parliament the import of such goods was banned. (iv) "A" promises "B" for valuable consideration to put back the life of a dead relation of "B" by some super natural powers but fails to keep up his promise. (v) "A" agrees to sell to "B" the entire crop of apples growing his field. After the agreement was made a suddenly frost destroyed the crop.	**C6**	**A**

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test – II			Date/ Session	23.11.23/FN	Marks	50
Course code	BA 4104	Course Title	ACCOUNTING FOR DECISION MAKING			
Batch No.		Duration	90 mins	Academic Year		2023-24
Year	I MBA	Semester/ Section	I/A	Department		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define a Fund flow statement.	C1	U&A
2	Difference between fund flow and cash flow statement	C1	U&A
3	What are the uses of cash flow statement?	C1	U&A
4	What do you mean by Ratio Analysis?	C1	U&A
5	What is Investing Activities?	C1	U&A
6	What are the tools used for financial Statement Analysis?	C1	U&A
7	What is a fund from operation?	C1	U&A
8	What are the advantages and Limitations of Ratio Analysis?	C1	U&A
9	What is the meaning of Financial Statement?	C1	U&A
10	What do you mean by Trend Analysis?	C1	U&A

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	From the following b/s of x ltd as on 31.12.1995 and 31.12.1996. you are required to prepare CFS.	C1	U&A

Liabilities	1995 rs	1996 rs	Assets	1995 rs	1996 rs
Share capital	150000	175000	Building	110000	150000
Bank loan	160000	100000	Plant	200000	140000
Creditors	85000	93000	Stock	50000	45000
o/s expenses	5000	7000	Debtors	70000	80000
Bills payable	50000	40000	Cash	15000	22000
Loans from lic	-	25000	Prepaid expenses	5000	3000
	450000	440000		450000	440000

Add. Info:

1. Net profit for the year 1986 RS.60000
2. During the year a plant costing RS 25000(accumulated depreciation RS.10000) was sold for RS.13000.
3. The provision for depreciation against plant as on 31.12.1985 was RS.50000 and 31.12.86 was RS.85000.

OR

12 From the following Particulars, Prepare a Comparative Balance Sheet of Sai Corporation. C1 U&A

Particulars	31.03.2020	31.03.2021
Share Capital	16,00,000	16,50,000
Fixed Assets	17,50,000	20,00,000
6% Government Bonds	3,00,000	3,00,000
Long- term Borrowings	7,00,000	8,00,000
Reserves and Surplus	2,50,000	1,00,000
Short term Investment	2,50,000	2,00,000
Stock	4,00,000	3,00,000
Creditors	2,50,000	3,00,000
Cash	1,00,000	50,000

13 From the following data relating to the ABC & co for the year 2018 to 2021, Calculate the trend Percentages (taking 2018 as the base year) C1 U&A

Particulars	2018	2019	2020	2021
Net sales	2,00,000	1,90,000	2,40,000	2,60,000
Less: Cost of goods sold	1,20,000	1,17,800	1,39,200	1,45,000
Gross Profit	80,000	72,200	1,00,800	1,14,400
Less: Expenses	20,000	19,400	22,000	24,000
Net Profit	60,000	52,800	78,800	90,400

OR

14	A Company Supplies the following information: Sales (credit) for the year = Rs 4,00,000 Gross Profit = Rs 1,60,000. Calculate: 1. Current Ratio 2. Quick ratio 3. Inventory turnover ratio 4. Average collection period 5. Proprietors funds to liabilities	C1	U&A

Liabilities	2015	Assets	2015
Share capital	2,00,000	Goodwill	1,20,000
Reserves& Surplus	58,000	Plant & Machinery	1,50,000
Debentures	1,00,000	Stock	80,000
Creditors	40,000	Debtors	45,000
Bills Payable	20,000	Cash	17,000
Other Current Liabilities	2,000	Miscellaneous Current Assets	8,000
	4,20,000		4,20,000

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	The following are summarized B/S of ITC ltd., as at 31st March, 1999 & 2000.	C6	A

Liabilities	1999	2000	Assets	1999	2000
Share capital	450000	450000	Fixed assets	400000	320000
General reserve	300000	310000	Investments	50000	60000
P&L a/c	56000	68000	Stock	240000	210000
Mortgage loan	-	270000	Sundry debtors	210000	455000
sundry creditor	168000	134000	Bank	149000	197000
Provision for taxation	75000	10000			
	10,49,000	12,42,000		10,49,000	1242000

	(1)Investment costing Rs. 8000 were sold during the year for Rs.8500 & further Investment were purchased during the year for Rs.18000. (2) Depreciation on fixed assets Rs. 70000 & provision for taxation Rs.10000. (3)During the year part of fixed assets costing Rs.10000 was disposed for Rs.12000 & the profit is included in the P&L a/c. (4)Dividend paid during the year amounted to Rs.40000, prepare FFS.		

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

Internal Assessment Test - II			Date/ Session	21.11.23/FN	Marks	50
Course code	BA4102	**Course Title**	Management Concepts and Organizational Behavior			
Batch No.		**Duration**	90 min	**Academic Year**		**2023-24**
Year	I MBA	**Semester/ Section**	I/A	**Department**		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Define Planning	C2	U&A
2	Explain MBO	C2	U&A
3	What is decentralization	C2	U&A
4	Explain authority and responsibility?	C2	U&A
5	Explain attitude?	C2	U&A
6	Explain Locus of Control	C3	U&A
7	Explain Type A Personality?	C3	U&A
8	Define perception.	C3	U&A
9	What is learning?	C3	U&A
10	Explain any 2 types of planning?	C3	U&A

Part – B

(Answer all the questions 2 x 10 = 20 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11	Explain the various steps involved in planning process?	C2	U&A
	OR		
12	Explain OB Modification process in detail?	C2	U&A
13	Explain the factors that determine personality?	C3	U&A
	OR		
14	Frequently used shortcuts in judging others – Discuss?	C3	U&A

Part – C

(Answer all the questions 1 x 10 = 10 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
15	In a factory, the male chief executive officer feels that women have an equal opportunity for advancement into top management, but the female assistant personnel manager feels there is no way she can break into top management‘s ―good old boy‖ network. In another factory, the head engineer who tours the factory floor once a week in an electric cart feels this is a pleasant place to work, but a punch press operator thinks this place ranks right next to the State prison. Questions: Q.1 Point out the reason for difference in perception in the first case? Q.2 Why does the engineer feel _a pleasant place to work‘whereas the operator regards it _next to prison‘? Explain the reason.	C6	A

Bloom’s Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

MODEL EXAMINATION			Date/ Session	26.12.2023/FN	Marks	100
Course code	BA4105	Course Title	Legal Aspects of Business			
Batch No.		Duration	3 Hours	Academic Year		2023-24
Year	I MBA	Semester/ Section	I/A	Department		MBA

Part – A

(Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	Distinguish void with voidable contract?	C1	U&A
2	State two difference between cheque and bill of exchange?	C1	U&A
3	Mention the characteristics of a company?	C2	U&A
4	Define Competition.	C2	U&A
5	What is known as minimum wages?	C3	U&A
6	Define Bonus.	C3	U&A
7	Define Corporate Tax.	C4	U&A
8	What is input tax credit?	C4	U&A
9	Define the term Unfair Trade Practice?	C5	U&A
10	What is called as copy rights?	C5	U&A

Part – B

(Answer all the questions 5 x 13 = 65 marks) Maximum 2 splits/Question

Q. No.	Questions	CO	Skills
11 (a)	Explain in detail about the various types of contract?	C1	U&A
	OR		
(b)	What are the different modes of discharge of negotiable instrument? Explain	C1	U&A
12(a)	How is a company formed under the company's Act 1956? Enumerate and explain the various documents to be filed with the registrar?	C2	U&A
	OR		
(b)	Explain in detail about the Competition Act?	C2	U&A
13 (a)	Explain in detail about the provisions relating to safety and welfare measures prescribed under factories act?	C3	U&A
	OR		
(b)	Describe the Industrial dispute redressal settlement mechanism process.	C3	U&A
14. (a)	What is corporate tax planning? Explain its objectives and scope?	C4	U&A
	OR		
(b)	Explain in detail about Goods and Service Tax Act 2017?	C4	U&A
15 (a)	Discuss the types of Consumer Redressal Machineries and forums involved in settling the consumer grievances and claims?	C5	U&A
	OR		
(b)	Explain in detail about Patent Act 1970?	C5	U&A

Part – C

(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	**Read the case carefully and answer the questions given at the end**. Mr.X an industrialist, manufacturer of pens, chalks, dusters and other education materials. There has been a persistent complaint from the customers that the chalks manufactured by him, have a lot of dust and it is troublesome to clean the board after writing. The Research and Development division of Mr.X came up with an innovative chalk. The chalks are absolutely dust free and the writing of the chalks gets vanished automatically after certain time. Mr. X applied for registration of the patent for this product and has got the patent. Subsequent to the patent granted, he continued with the production for five years after which he stopped the production. The reason was the lack of demand because of the heavy cost of the product. Mr. Y a College lecturer independently made research on the similar type of chalks and came out with the same quality chalks with mach less cost. He applied for patents which was objected by **Mr.X on the ground that-** ➢ Patent for the same product is registered in his name. ➢ The product developed by Mr.Y is not an innovative but it is the imitation of his patented product. **Mr.Y claimed that-** ➢ The product patented by Mr.X is not in use as he has stopped the production. ➢ The product invented by Mr.Y is different than that of Mr.X's product in many respects such as shape, quality, cost, etc. ➢ Mr.Y who is a lecturer in a Government college, has carried out the research on this product as a part of his academic work. ➢ He wants to produce the chalks exclusively for the Government colleges. ***Questions*** 1. Is Mr. X objection was right? 2. Discuss the rights of Mr. X and Mr. Y as per the provisions of Patents Act 1970. ******	C6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

Saranathan College of Engineering

Tiruchirapalli

MODEL EXAMINATION			Date/ Session	21.12.2023	Marks	100
Course code	BA4103	**Course Title**	Managerial Economics			
Batch No.		**Duration**	3 Hours	**Academic Year**		2023-24
Year	I MBA	**Semester/ Section**	I/A	**Department**		MBA

Part – A (Answer all the questions 10 x 2 = 20 marks)

Q. No.	Questions	CO	Skills
1	What is production possibility curve?	C1	U&A
2	What is positive externality?	C1	U&A
3	What is cross-elasticity of demand?	C2	U&A
4	What is market equilibrium?	C2	U&A
5	What is equi-marginal utility?	C3	U&A
6	What is an isoquant?	C3	U&A
7	What is perfect competition?	C4	U&A
8	What is Okun's law?	C4	U&A
9	What are the components of aggregate demand?	C5	U&A
10	What is Phillips curve?	C5	U&A

Part – B (Answer all the questions 5 x 13 = 65 marks)

Q. No.	Questions	CO	Skills
11 (a)	The markets and Government play their role effectively in an economy like India. Comment.	C1	U&A
	OR		
(b)	How to achieve economic growth of a nation with stability?	C1	U&A
12(a)	Explain consumer surplus, indifference curve and diminishing marginal utility.	C2	U&A
	OR		
(b)	How is production function related to cost function? Explain with diagrams.	C2	U&A
13 (a)	Define oligopoly. Explain how price and output decisions are taken under oligopoly.	C3	U&A
	OR		
(b)	Perfect competition is more efficient than monopoly. Do you agree?	C3	U&A
14. (a)	Explain the three methods of estimating national income. What are the difficulties in estimating it?	C4	U&A
	OR		
(b)	Explain the role of fiscal policy. Comment on its multiplier effect.	C4	U&A
15 (a)	What are the different types of inflation? Explain the reasons and its impact.	C5	U&A
	OR		
(b)	Explain the monetary policy tools. Explain causes and impact of unemployment.	C5	U&A

Part – C

(Answer all the questions 1 x 15 = 15 marks) Case study or Analytical type

Q. No.	Questions	CO	Skills
16	How does the study of managerial economics help a manager in decision-making? Illustrate your answer with examples from production and pricing issues.	C6	A

Bloom's Skills: Remember (R), Understand (U), Apply (A), Analyze (AZ), Evaluate (E) and Create (C). Skill need to be mentioned against each question

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	AMAR JAHAN H			Year / Semester / Section	I I
Batch No.	267507	Date / Session	21/11/23 F.N	Department	MBA
Course Code	BAH102	Course Title	MANAGEMENT CONCEPTS AND ORGANIZATIONAL BEHAVIOR		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 15
Name and Signature of the Invigilator with date			J. Jan 21/11/23		

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓	2	11	✓	8			8
2	✓	2	12					
3	✓	2	13					
4	✓	2	14	✓	8			8
5	✓	2	15	✓	7			7
6	✓	2	16					
7	✓	2					Total	23
8	✓	2						
9	✓	2						
10	✓	2						
Total		20	Grand Total		43		Name and Signature of the Examiner with date	

To be filled by the examiner

	1	2	3	4	5	6	Total
Course Outcomes							
Marks allotted							
Marks Obtained							

QAC Audit - Remarks

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	NIVEDHA. S.D			Year / Semester / Section	I/II
Batch No.	267539	Date / Session	02/04/24 FN	Department	MBA
Course Code	BA4207	Course Title	Marketing Management.		
Internal Assessment Test	I [✓]	II [ ]	III [ ]	Model [ ]	No. of pages used : 19
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1			11					
2			12					
3			13					
4			14					
5			15					
6			16					
7							Total	
8			44/50				S. Nivedha	
9								
10								
Total			Grand Total				Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted							
Marks Obtained							

QAC Audit - Remarks

Name and Signature of the QAC member

SARANATHAN COLLEGE OF ENGINEERING

Tiruchirapalli - 620 012

ANSWER BOOK

Name	M. Saravanathi			Year / Semester / Section	2nd/3rd S
Batch No.	257538	Date / Session	08.12.2023	Department	MBA
Course Code	BAA019	Course Title	Reward and Compensation Management		
Internal Assessment Test	I ☐	II ☑	III ☐	Model ☐	No. of pages used : 17
Name and Signature of the Invigilator with date					

INSTRUCTIONS TO THE CANDIDATES :

1. Answers for Part-A must be written in pages 2-6. Answers for Part-B must be written from page 7 onwards.
2. Write your Batch Number in the Question Paper.
3. Use both sides of the paper for answering questions.
4. The answer book contains sufficient pages and no additional sheets will be given.
5. Possesion of any incriminating material and malpractice of any nature shall be punishable as per rules.
6. Answer must be legibly written in pen (blue or black colour)

Instruction to the student : Put tick mark to the question attended in the column against question.

Part A			Part B / C					Total Marks
Q. NO.	✔	Marks	Q. NO.	✔	(a) Marks	✔	(b) Marks	
1	✓		11					
2	✓		12	✓				
3	✓		13	✓				
4	✓		14					
5	✓		15	✓				
6	✓		16					
7	✓						Total	
8	✓							
9	✓							
10	✓							
Total			Grand Total				Name and Signature of the Examiner with date	

42/50 — 84% V. good — J. Jan 9/12/23

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted							
Marks Obtained							

QAC Audit - Remarks

Name and Signature of the QAC member

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '1' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'MBA' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:MBA Semester:1 Section:A

Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	BA4032-chandramouli-mba			BA4101-arunkumar-mat			BA4102-karthikeyan-mba			BA4103-arunprasad-mba			BA4104-mahalakshmi-mba			BA4105-syed-mba			BA4106-saravanan-mba		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813823631001	267501	AAKASH. M	MQ	NIL	7.2449	40	30	31	10	22	17	36	42	43	32	32	13	42	30	23	32	68	50	28	42	30
2	813823631002	267502	AARTHI. C	MQ	NIL	8.2041	88	72	91	70	76	71	84	68	74	84	78	40	78	78	78	60	72	80	72	72	63
3	813823631003	267503	AARTHI. M	GQ	NIL	8.551	86	86	87	78	74	91	82	80	79	90	86	68	74	98	85	88	88	72	78	72	70
4	813823631004	267504	AARTHI. R	GQ	2	*	26	30	29	32	26	44	40	46	35	72	A	19	38	54	55	32	32	40	36	44	40
5	813823631005	267505	ADRIAN IMMANUEL LLOYD	GQ	NIL	7.449	60	50	69	42	50	39	30	58	62	62	50	43	52	76	71	A	50	55	54	62	52
6	813823631006	267506	AKSHAYAPRIYA. V S	MQ	NIL	8.5714	88	70	72	82	80	65	64	64	90	88	88	71	77	96	85	80	88	82	76	68	60
7	813823631007	267507	AMAR JAHAN. H	GQ	NIL	8.7347	86	90	91	98	100	95	82	86	91	90	88	79	71	96	98	88	88	84	74	80	65
8	813823631008	267508	ARCHANA. A	MQ	NIL	7.898	74	76	73	60	64	69	50	56	53	80	76	52	54	88	58	80	74	62	54	66	55
9	813823631009	267509	ARUL. B	MQ	NIL	8	60	40	35	24	52	22	50	40	21	56	04	56	52	A	54	32	74	34	50	56	42
10	813823631010	267510	ARUN. S K	MQ	NIL	8.6122	88	66	74	96	90	87	68	74	59	88	88	71	82	76	90	88	88	66	58	70	48
11	813823631011	267511	ASHOK PANDIAN. V	MQ	NIL	7.7551	60	46	69	34	36	57	50	46	22	66	66	39	33	66	52	34	80	31	42	60	35
12	813823631012	267512	BALAJI. S	MQ	NIL	8.0204	72	52	69	58	50	55	50	64	61	70	74	70	69	90	80	68	74	50	60	70	50
13	813823631013	267513	BAVADHARANI. A	GQ	3	*	40	44	34	26	22	27	44	44	57	44	42	49	47	72	71	30	50	53	60	50	45
14	813823631014	267514	BHUMIKKA. A	GQ	NIL	8.6939	92	88	85	38	70	74	78	76	81	88	88	79	77	84	87	88	88	77	86	84	64
15	813823631015	267515	DEEKSHITHA. V	MQ	2	*	58	50	57	52	36	22	58	56	53	50	42	24	41	64	42	50	50	42	56	50	52
16	813823631016	267516	DHARSHINI. A	MQ	NIL	8.1633	64	78	54	68	54	74	44	50	71	84	68	11	61	76	86	66	64	61	58	72	60
17	813823631017	267517	EASWARI. M	MQ	NIL	8.0408	76	64	71	50	54	68	56	60	50	88	76	47	84	90	89	88	70	58	72	80	65
18	813823631018	267518	GAYATHRI. S	GQ	NIL	9.2857	90	74	82	88	94	88	84	84	89	90	80	81	88	92	84	88	88	83	88	84	A
19	813823631019	267519	GOWTHAM. P	GQ	NIL	8.2041	80	64	63	70	72	35	64	64	67	66	86	67	61	72	47	80	82	60	60	72	52
20	813823631020	267520	HARINI. S	GQ	NIL	8.551	82	80	64	90	80	72	78	72	80	88	90	57	62	96	73	86	86	71	70	78	63
21	813823631021	267521	HEMADEVI. R	MQ	NIL	7.8571	64	50	25	30	72	35	54	52	12	72	54	17	61	66	28	58	44	24	62	74	42
22	813823631022	267522	JAYA SAKTHI. B	GQ	NIL	8.5918	84	90	85	86	84	68	68	70	62	88	90	66	71	88	94	78	80	53	80	80	70
23	813823631023	267523	JEEVADHARSHINI. R	MQ	NIL	8.4286	82	80	74	58	81	71	74	58	90	84	88	74	52	94	70	88	88	83	74	74	71
24	813823631024	267524	JEEVANSANJAY. R	MQ	NIL	8.2041	82	66	85	54	54	34	60	76	71	68	74	59	57	80	58	46	70	60	50	56	40
25	813823631025	267525	KAMATSHI MADHUMITHA. S	GQ	NIL	8.0213	38	62	55	42	44	50	58	52	49	66	80	47	56	70	69	56	60	42	74	64	58
26	813823631026	267526	KANNAN. H	MQ	NIL	7.6939	60	72	61	70	52	52	50	52	59	70	70	53	48	68	66	A	70	50	56	38	38
27	813823631027	267527	KAOSALYA. P	MQ	NIL	8.0408	68	62	51	40	44	41	50	58	82	82	70	55	42	76	57	80	60	71	62	54	40
28	813823631028	267528	KAVEENDRA. N	MQ	NIL	8.1224	50	58	34	50	50	50	50	76	61	88	76	43	48	80	53	84	88	56	60	68	A
29	813823631029	267529	KAVI BHARATHI. S	MQ	NIL	7.7755	80	50	78	82	76	68	60	66	51	68	72	54	47	78	76	50	80	54	54	60	50
30	813823631030	267530	KEERTHANA. M	MQ	NIL	8.9184	76	56	84	80	80	86	58	58	63	88	80	75	74	86	83	80	70	70	74	50	68
31	813823631031	267531	KEERTHANA. N M	GQ	NIL	9.1837	90	84	90	96	92	89	74	78	89	90	88	85	81	98	90	88	88	81	72	74	55
32	813823631032	267532	LAKSHMI KIRUPA. C	MQ	1	*	80	54	74	32	74	50	62	70	71	70	72	68	41	60	72	70	54	64	72	64	52
33	813823631033	267533	LOGESH. M	GQ	NIL	8	58	28	57	62	66	56	52	36	12	70	56	48	36	32	52	50	50	31	42	50	28
34	813823631034	267534	METILDA JOY. A	GQ	NIL	8.6939	78	76	62	58	86	40	70	70	66	76	80	65	A	80	66	A	88	70	74	70	51
35	813823631035	267535	MOHANAPRIYA. K	MQ	NIL	*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
36	813823631036	267536	NAGARAJAN. G	GQ	1	*	54	50	51	46	60	65	32	50	50	58	60	57	57	68	54	38	72	51	52	40	42
37	813823631037	267537	NITHISH KUMAR. K	MQ	1	*	72	50	33	58	72	79	58	54	43	A	60	50	A	70	39	28	54	29	60	42	45
38	813823631038	267538	NITHYASREE. R	MQ	NIL	8.3673	62	64	63	60	92	67	70	64	71	88	82	62	61	86	85	72	38	60	72	74	50
39	813823631039	267539	NIVEDHA. S D	MQ	NIL	9.2857	90	A	84	88	80	66	78	72	90	90	86	77	74	96	80	88	88	83	74	60	60
40	813823631040	267540	OOVIYA. RA V	MQ	NIL	8.2245	62	64	50	82	68	14	50	66	62	82	80	46	52	38	58	88	80	50	64	54	20
41	813823631041	267541	PRAKASH RAJ. M	MQ	NIL	8.0408	74	78	61	66	68	50	52	68	23	60	70	61	57	66	67	64	82	42	50	64	45
42	813823631042	267542	PRAKASH RAJ. P	MQ	1	*	50	60	51	44	60	61	50	50	71	50	34	37	39	50	56	60	72	63	50	50	35
43	813823631043	267543	PREM. G	MQ	NIL	8.3673	80	76	A	90	86	A	58	66	55	68	78	75	59	70	68	70	80	A	70	68	A
44	813823631044	267544	PRITHIVI NARAYAN. R	MQ	NIL	8.1633	72	A	87	32	56	45	56	56	62	66	76	55	52	90	66	66	88	60	70	70	53
45	813823631045	267545	PRIYADHARSHINI. P	MQ	NIL	7.5306	60	56	59	32	54	31	60	64	39	32	38	38	51	82	56	50	72	45	70	66	35
46	813823631046	267546	RAMESH BABU. E	GQ	NIL	8.8367	90	64	84	82	92	74	74	76	89	88	90	80	84	86	90	88	88	82	80	70	60

47	813823631047	267547	RISHIBA. S	MQ	NIL	8.1429	58	52	60	40	50	44	60	56	56	78	70	51	65	88	66	60	52	47	76	60	65
48	813823631048	267548	ROOPASHRI. R	MQ	NIL	8.7959	66	70	72	60	60	54	54	66	76	76	86	66	79	70	90	80	72	75	66	72	53
49	813823631049	267549	SANA. R	GQ	2	*	58	54	39	04	32	36	56	58	56	72	52	19	39	84	66	80	76	60	56	60	40
50	813823631050	267550	SATHYABHAMA. S	MQ	NIL	8.5918	88	68	78	76	80	74	74	68	79	86	82	78	70	60	77	88	56	82	72	66	50
51	813823631051	267551	SATHYANIVAAZ. V	MQ	NIL	7.7755	58	70	70	26	44	21	50	52	71	76	46	62	43	42	47	80	62	64	56	62	38
52	813823631052	267552	SHOBANA. C	GQ	NIL	8.3673	86	86	77	86	60	63	76	76	80	88	90	74	82	92	88	84	88	70	58	62	39
53	813823631053	267553	SOUNDARYA. S	MQ	NIL	8.3878	82	52	52	50	56	30	72	72	52	76	64	49	66	42	48	88	80	46	68	56	43
54	813823631054	267554	SUDARSHANA. R	GQ	NIL	8.6939	74	72	82	76	76	83	74	64	81	78	86	74	73	88	88	88	88	77	70	66	55
55	813823631055	267555	THANUVASAN. S	MQ	1	*	70	54	52	36	56	54	56	66	59	42	58	44	42	42	53	52	72	57	66	50	43
56	813823631056	267556	THEEPIKA. P	GQ	NIL	8.6735	82	84	78	90	A	84	64	60	83	84	88	73	70	96	92	88	88	72	74	72	58
57	813823631057	267557	VIDHYA BHARATHI B	MQ	1	*	66	60	A	44	64	A	40	50	52	66	58	53	53	82	46	66	56	50	70	72	A
58	813823631058	267558	VIGNESH. R	MQ	NIL	7.7143	78	56	76	62	70	65	56	50	82	62	50	62	67	80	85	50	54	72	70	62	51
59	813823631059	267559	VIJAYA SABNAAH. P	MQ	NIL	8.1429	56	52	59	72	84	59	50	52	50	62	62	62	54	84	79	88	60	57	64	64	47
60	813823631060	267560	YADHAVAN. S	MQ	NIL	8.7755	86	80	51	88	76	64	52	A	52	76	80	38	58	64	55	88	70	45	76	80	40
No.of Failures(<50)							4	6	8	20	9	18	7	6	10	4	7	19	15	6	8	8	3	13	4	5	23

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '2' and b.sec = 'A' and b.semperiod = '23-24EVEN' and b.branch = 'MBA' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:MBA Semester:2 Section:A

Semester Period:23-24EVEN

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	BA4201-ravichandran-mat			BA4202-chandramouli-mba			BA4203-karthikeyan-mba			BA4204-arunprasad-mba			BA4205-mahalakshmi-mba			BA4206-saravanan-mba			BA4207-syed-mba			BA4211-arunprasad-mba			BA4212-mahalakshmi-mba		
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
1	813823631001	267501	AAKASH. M	MQ	NIL	7.2449	10	16	11	24	24	26	52	52	40	50	A	25	32	A	35	42	30	36	38	32	19						
2	813823631002	267502	AARTHI. C	MQ	NIL	8.2041	70	68	66	70	62	84	74	76	80	86	82	75	66	66	63	A	78	39	72	92	80						
3	813823631003	267503	AARTHI. M	GQ	NIL	8.551	96	74	84	66	92	92	78	80	93	94	94	86	76	68	72	78	84	81	86	84	75						
4	813823631004	267504	AARTHI. R	GQ	2	*	16	30	21	A	24	31	76	78	55	58	44	68	60	A	64	54	56	55	A	30	42						
5	813823631005	267505	ADRIAN IMMANUEL LLOYD	GQ	NIL	7.449	A	50	39	38	22	74	A	50	65	44	34	67	62	44	58	68	60	A	52	70	51						
6	813823631006	267506	AKSHAYAPRIYA. V S	MQ	NIL	8.5714	70	62	71	62	70	79	74	76	79	88	86	84	68	64	70	78	74	76	88	92	53						
7	813823631007	267507	AMAR JAHAN. H	GQ	NIL	8.7347	98	78	73	70	88	94	76	76	91	90	92	87	82	78	84	86	84	85	74	90	82						
8	813823631008	267508	ARCHANA. A	MQ	NIL	7.898	62	56	44	62	92	82	68	56	68	80	78	74	42	52	56	70	76	73	74	82	60						
9	813823631009	267509	ARUL. B	MQ	NIL	8	58	54	74	70	34	84	56	54	62	74	72	50	58	36	51	46	56	51	76	82	54						
10	813823631010	267510	ARUN. S K	MQ	NIL	8.6122	90	82	60	74	80	83	74	60	80	78	84	81	54	54	57	78	82	80	86	92	70						
11	813823631011	267511	ASHOK PANDIAN. V	MQ	NIL	7.7551	36	59	47	50	46	66	60	60	68	60	A	72	34	36	30	62	54	58	72	70	57						
12	813823631012	267512	BALAJI. S	MQ	NIL	8.0204	50	77	56	46	46	89	66	66	84	72	88	80	72	56	66	66	50	58	38	80	69						
13	813823631013	267513	BAVADHARANI. A	GQ	3	*	6	75	25	46	30	83	30	36	35	54	56	6	30	28	32	64	50	57	26	38	5						
14	813823631014	267514	BHUMIKKA. A	GQ	NIL	8.6939	50	60	55	58	50	93	72	84	87	94	94	88	82	80	84	80	88	84	88	88	82						
15	813823631015	267515	DEEKSHITHA. V	MQ	2	*	22	50	26	66	62	84	52	56	75	46	84	76	48	46	53	50	54	52	52	72	50						
16	813823631016	267516	DHARSHINI. A	MQ	NIL	8.1633	66	50	55	52	2	83	58	58	84	60	A	80	60	A	66	68	68	68	82	82	72						
17	813823631017	267517	EASWARI. M	MQ	NIL	8.0408	58	65	59	66	40	89	74	74	81	76	76	83	62	A	68	60	72	66	72	92	56						
18	813823631018	267518	GAYATHRI. S	GQ	NIL	9.2857	98	72	89	86	92	96	74	82	88	90	94	A	82	86	87	84	90	A	88	92	A						
19	813823631019	267519	GOWTHAM. P	GQ	NIL	8.2041	76	65	68	36	42	61	54	74	75	80	72	76	62	54	64	70	70	70	54	74	70						
20	813823631020	267520	HARINI. S	GQ	NIL	8.551	82	50	76	64	74	76	74	76	78	84	84	85	64	64	68	80	A	75	88	86	52						
21	813823631021	267521	HEMADEVI. R	MQ	NIL	7.8571	A	50	25	A	A	63	A	A	66	A	24	57	A	20	10	A	A	52	A	42	35						
22	813823631022	267522	JAYA SAKTHI. B	GQ	NIL	8.5918	74	58	75	74	68	87	78	76	81	90	92	88	68	62	69	80	A	74	88	92	58						

23	813823631023	267523	JEEVADHARSHINI. R	MQ	NIL	8.4286	74	68	37	82	A	74	70	76	80	84	88	84	72	74	77	80	A	68	88	A	75						
24	813823631024	267524	JEEVANSANJAY. R	MQ	NIL	8.2041	58	75	68	68	58	65	66	74	70	80	78	78	56	60	67	66	68	67	74	88	65						
25	813823631025	267525	KAMATSHI MADHUMITHA. S	GQ	NIL	8.0213	54	50	45	62	52	52	62	76	68	62	78	82	68	56	64	76	74	75	72	82	65						
26	813823631026	267526	KANNAN. H	MQ	NIL	7.6939	62	54	61	50	60	59	44	58	71	60	70	67	44	42	48	50	62	56	44	80	53						
27	813823631027	267527	KAOSALYA. P	MQ	NIL	8.0408	50	70	29	60	52	63	56	A	72	78	84	75	56	52	57	68	62	65	76	68	50						
28	813823631028	267528	KAVEENDRA. N	MQ	NIL	8.1224	A	65	52	76	56	69	52	56	69	50	62	60	34	44	48	70	60	65	66	70	50						
29	813823631029	267529	KAVI BHARATHI. S	MQ	NIL	7.7755	84	72	75	66	80	93	68	66	88	74	86	75	56	50	58	56	74	65	80	76	82						
30	813823631030	267530	KEERTHANA. M	MQ	NIL	8.9184	A	54	68	70	76	93	60	66	84	72	80	83	60	56	66	64	70	67	76	88	82						
31	813823631031	267531	KEERTHANA. N M	GQ	NIL	9.1837	100	92	94	82	100	98	68	68	95	90	94	89	82	86	89	82	86	84	88	94	88						
32	813823631032	267532	LAKSHMI KIRUPA. C	MQ	1	*	50	54	40	60	42	83	54	66	78	80	82	77	46	32	48	50	56	53	74	76	72						
33	813823631033	267533	LOGESH. M	GQ	NIL	8	54	56	43	56	18	50	54	54	61	72	62	57	42	30	46	56	54	55	64	88	35						
34	813823631034	267534	METILDA JOY. A	GQ	NIL	8.6939	72	52	65	70	54	61	70	74	72	92	88	81	52	54	58	80	68	74	76	94	78						
35	813823631036	267536	NAGARAJAN. G	GQ	1	*	70	70	76	66	76	73	40	50	66	74	66	67	42	50	58	50	64	57	64	76	56						
36	813823631037	267537	NITHISH KUMAR. K	MQ	1	*	50	67	23	42	50	50	64	62	69	76	86	66	54	A	59	66	72	69	46	62	15						
37	813823631038	267538	NITHYASREE. R	MQ	NIL	8.3673	70	90	61	66	76	83	68	78	69	82	88	78	56	58	63	72	74	73	74	86	63						
38	813823631039	267539	NIVEDHA. S D	MQ	NIL	9.2857	96	88	95	82	94	92	68	80	85	86	94	89	62	72	76	62	74	68	88	94	88						
39	813823631040	267540	OOVIYA. RA V	MQ	NIL	8.2245	54	76	59	56	82	67	42	72	56	72	82	29	36	52	59	56	66	61	32	74	75						
40	813823631041	267541	PRAKASH RAJ. M	MQ	NIL	8.0408	54	52	50	56	80	87	56	66	69	86	86	79	58	54	58	80	72	76	80	82	66						
41	813823631042	267542	PRAKASH RAJ. P	MQ	1	*	50	61	51	60	52	52	58	54	51	76	88	64	36	56	62	66	60	63	80	80	47						
42	813823631043	267543	PREM. G	MQ	NIL	8.3673	96	68	78	62	70	71	66	68	80	82	86	84	62	64	66	64	64	64	88	94	80						
43	813823631044	267544	PRITHIVI NARAYAN. R	MQ	NIL	8.1633	52	50	50	92	64	89	76	70	86	88	88	89	54	64	72	70	72	71	84	84	71						
44	813823631045	267545	PRIYADHARSHINI. P	MQ	NIL	7.5306	50	50	44	50	34	78	66	70	63	54	76	66	58	40	63	70	64	67	50	70	62						
45	813823631046	267546	RAMESH BABU. E	GQ	NIL	8.8367	96	72	91	88	100	97	74	74	80	90	92	88	60	70	74	72	76	74	86	88	82						
46	813823631047	267547	RISHIBA. S	MQ	NIL	8.1429	62	75	63	24	62	69	64	72	78	86	88	76	64	64	72	76	70	73	74	82	84						
47	813823631048	267548	ROOPASHRI. R	MQ	NIL	8.7959	50	50	55	68	82	57	70	78	66	90	90	85	74	60	69	74	86	80	84	84	80						
48	813823631049	267549	SANA. R	GQ	2	*	30	24	29	58	26	53	56	54	50	76	70	50	52	44	54	60	60	60	A	82	46						
49	813823631050	267550	SATHYABHAMA. S	MQ	NIL	8.5918	82	86	91	62	84	87	74	76	86	90	92	88	72	70	75	74	76	75	88	94	70						
50	813823631051	267551	SATHYANIVAAZ. V	MQ	NIL	7.7755	50	50	36	46	50	56	58	70	71	72	80	67	32	38	42	54	54	54	66	82	41						
51	813823631052	267552	SHOBANA. C	GQ	NIL	8.3673	92	90	96	78	92	91	72	70	90	88	90	87	58	68	72	58	68	63	84	84	82						

52	813823631053	267553	SOUNDARYA. S	MQ	NIL	8.3878	52	58	36	24	28	75	70	70	80	88	62	81	54	50	53	62	76	69	84	82	66										
53	813823631054	267554	SUDARSHANA. R	GQ	NIL	8.6939	98	96	92	72	100	95	70	64	91	88	90	86	52	64	66	68	84	76	88	88	82										
54	813823631055	267555	THANUVASAN. S	MQ	1	*	62	50	53	44	76	73	58	50	77	58	88	75	40	60	77	58	70	64	70	76	47										
55	813823631056	267556	THEEPIKA. P	GQ	NIL	8.6735	90	82	90	68	100	98	68	74	95	90	92	87	60	82	88	76	82	79	88	94	88										
56	813823631057	267557	VIDHYA BHARATHI B	MQ	1	*	54	59	46	50	A	66	64	58	70	52	84	71	52	40	54	50	68	59	50	64	44										
57	813823631058	267558	VIGNESH. R	MQ	NIL	7.7143	50	50	64	62	64	84	A	62	81	74	88	74	50	62	65	68	78	73	76	86	76										
58	813823631059	267559	VIJAYA SABNAAH. P	MQ	NIL	8.1429	58	74	88	62	54	82	64	A	78	88	A	66	62	36	68	62	72	67	72	86	74										
59	813823631060	267560	YADHAVAN. S	MQ	NIL	8.7755	70	58	71	50	64	74	70	74	80	68	88	61	42	38	55	72	76	74	56	88	58										
No.of Failures(<50)							6	3	19	10	15	2	4	1	2	2	3	3	14	15	9	2	1	2	6	4	11	0	0	0	0	0	0			

select unique a.batchno,a.regno,a.name,a.adquota from all_students_view a,cycletest_marks b where a.batchno = b.batchno and b.sem = '3' and b.sec = 'A' and b.semperiod = '23-24ODD' and b.branch = 'MBA' order by a.regno

Classwise ALL Cycletest Mark Summary Report

Class:MBA Semester:3 Section:A
Semester Period:23-24ODD

S.no	Regno	Batchno	Name	Quota	Arrear Count	CGPA	BA4001-chandramouli-mba			BA4002-mahalakshmi-mba			BA4003-chandramouli-mba			BA4008-syed-mba			BA4010-karthikeyan-mba			BA4011-saravanan-mba			BA4015-mahalakshmi-mba			BA4016-karthikeyan-mba			BA4019-saravanan-mba			BA4021-arunprasad-mba			BA4022-mahesh-mech	
							A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2
1	813822631001	257501	ABINAYA. R	GQ	NIL	8.382	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	80	62	70	70	57	74	74	23	68	70	75	80	72	73	78	A	67	NA	NA	NA	NA	NA
2	813822631002	257502	AISHWARYA. C	MQ	NIL	8.6742	86	82	73	70	74	74	88	66	76	A	NA	NA	NA	NA	NA	NA	NA	NA	62	76	85	74	74	77	72	76	58	NA	NA	NA	NA	NA
3	813822631003	257503	ANANDH. V	GQ	NIL	7.8427	NA	NA	NA	NA	NA	NA	NA	NA	NA	42	66	34	62	58	36	38	70	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	66	66	41	66	60
4	813822631004	257505	ANUBAMA. M	MQ	NIL	9.2809	98	86	79	84	86	86	90	92	88	88	88	88	80	86	78	88	88	58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	813822631005	257504	ANU PRIYA. K	GQ	NIL	9.0112	98	90	81	84	86	88	92	92	80	A	NA	NA	NA	NA	NA	NA	NA	NA	72	84	88	80	74	72	78	84	66	NA	NA	NA	NA	NA
6	813822631006	257506	ARJUN H.D	MQ	1	*	NA	NA	NA	NA	NA	NA	NA	NA	NA	24	18	21	50	44	23	34	50	17	24	32	39	28	34	23	16	20	17	NA	NA	NA	NA	NA
7	813822631007	257507	BELCIYA MARY. P	GQ	NIL	8.3146	84	64	80	58	60	68	84	80	74	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	60	66	76	64	52	A	66	55	NA	NA	NA	NA	NA
8	813822631008	257508	BHAGAVATHY. J	GQ	NIL	9.1124	80	56	76	64	68	72	72	72	76	NA	NA	NA	NA	A	NA	A	NA	NA	66	78	84	78	66	62	80	86	70	NA	NA	NA	NA	NA
9	813822631009	257509	CHANAKYA VYAS. G N	MQ	NIL	7.9775	38	44	56	30	50	42	44	72	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	62	27	70	50
10	813822631010	257510	DHARANI. S	GQ	NIL	9.1124	86	58	84	76	78	82	72	82	78	NA	NA	NA	A	NA	NA	NA	NA	NA	60	76	72	72	70	56	76	78	66	NA	NA	NA	NA	NA
11	813822631011	257511	DHARSHINI PRIYA. R	MQ	NIL	7.8652	NA	NA	NA	NA	NA	NA	NA	NA	NA	46	A	22	A	38	35	A	50	26	38	NA	NA	NA	NA	NA	A	NA	NA	52	70	33	84	86
12	813822631012	257512	DHIVYA DHARSHINI. A	MQ	NIL	7.8202	30	36	10	36	32	44	44	36	46	NA	NA	NA	NA	NA	NA	A	NA	NA	NA	42	48	42	30	61	A	52	52	NA	NA	NA	NA	NA
13	813822631013	257513	DIVYA SRI. R	GQ	NIL	7.9438	50	38	41	54	60	66	50	54	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	48	62	66	50	58	66	50	56	53	NA	NA	NA	NA	NA
14	813822631014	257514	GAYATHRI. R	GQ	1	*	NA	NA	NA	0	NA	NA	NA	NA	NA	88	88	67	80	60	67	76	62	55	70	70	68	68	64	77	76	78	55	NA	NA	NA	NA	NA
15	813822631015	257515	KEREN DIVIYA. R	GQ	NIL	8.6067	NA	NA	NA	NA	NA	NA	NA	NA	NA	88	82	82	66	70	71	76	56	54	38	72	75	72	72	80	66	74	67	NA	NA	NA	NA	NA
16	813822631016	257516	KRISHNA KUMAR. S T	MQ	3	*	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	42	13	A	60	19	50	38	25	34	44	50	54	58	22	26	34	45	NA	NA	NA	NA	NA
17	813822631017	257517	KRUTHI. M	GQ	NIL	8.618	82	76	67	70	78	76	66	84	70	80	84	80	76	78	70	78	76	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18	813822631018	257518	MADHAN RAJ. A	MQ	NIL	7.8989	70	36	22	52	46	58	62	54	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70	52	38	88	62
19	813822631019	257519	MANICKAVASAGAM. M	GQ	NIL	8.1461	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	74	62	74	58	62	58	72	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	66	50	28	78	38
20	813822631020	257520	NANDHINI. S S	MQ	NIL	8.0787	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	80	59	44	54	70	60	58	23	44	NA	48	A	A	51	50	34	A	NA	NA	NA	NA	NA
21	813822631021	257521	NAREN. R S	GQ	NIL	7.9775	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	62	47	64	66	52	70	66	43	52	56	52	62	56	44	54	56	40	NA	NA	NA	NA	NA
22	813822631022	257522	NAVEEN RAJ. B	MQ	NIL	7.6629	30	A	22	20	24	28	38	52	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62	50	14	68	26
23	813822631023	257523	NIVETHA. M	MQ	2	*	40	60	50	38	44	44	42	74	54	NA	NA	NA	NA	NA	NA	NA	NA	NA	52	46	48	58	44	45	54	60	45	NA	NA	NA	NA	NA
24	813822631024	257524	PADMAPRIYA. V	MQ	NIL	8.1124	74	50	43	74	72	76	52	50	47	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	62	58	68	66	50	60	70	51	NA	NA	NA	NA	NA
25	813822631025	257525	PRAGADEESWARI. P	MQ	NIL	8.2472	80	76	68	72	74	76	78	84	58	NA	NA	NA	NA	NA	NA	NA	NA	NA	58	62	66	70	62	52	56	72	40	NA	NA	NA	NA	NA
26	813822631026	257526	PRATHIBA. A V	MQ	NIL	8.2135	NA	NA	NA	NA	NA	NA	NA	NA	NA	76	42	60	68	68	58	74	76	50	42	50	55	62	50	55	60	60	42	NA	NA	NA	NA	NA
27	813822631027	257527	PRITIKA KUMAR	MQ	NIL	9.1011	92	74	80	NA	74	82	92	92	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	70	74	80	78	82	74	74	73	NA	NA	NA	NA	NA
28	813822631028	257528	PRIYADHARSHINI. K	MQ	NIL	8.1236	52	28	33	64	14	20	28	A	4	NA	NA	NA	A	NA	NA	A	NA	NA	30	32	25	68	A	85	64	A	54	NA	NA	NA	NA	NA
29	813822631029	257529	PRIYADHARSHINI. S	GQ	NIL	8.8876	56	68	54	72	76	70	66	66	61	NA	NA	NA	NA	NA	NA	NA	NA	NA	A	68	65	70	50	NA	70	76	55	NA	NA	NA	NA	NA
30	813822631030	257530	PRIYANKA KUMAR	MQ	NIL	8.7416	NA	NA	NA	78	NA	NA	NA	NA	NA	88	86	NA	78	80	80	74	86	56	64	72	75	76	78	NA	A	74	69	NA	NA	NA	NA	NA
31	813822631031	257531	RAAGAVI. A	GQ	NIL	8.9438	NA	NA	NA	NA	NA	NA	NA	NA	NA	A	88	NA	76	86	81	82	88	56	66	80	84	76	78	NA	70	84	67	NA	NA	NA	NA	NA
32	813822631032	257532	RADHA. M	MQ	NIL	9.0899	76	66	62	80	76	86	62	62	68	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	80	82	80	78	88	80	84	A	NA	NA	NA	NA	NA
33	813822631033	257533	RIYAS MOHAMED. T	MQ	NIL	7.9888	50	36	45	46	40	55	24	50	33	32	60	10	56	58	34	78	38	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
34	813822631034	257534	ROOPAMANJARI. G	MQ	NIL	7.7303	42	22	25	62	18	68	28	A	23	NA	NA	NA	A	NA	NA	NA	NA	NA	24	34	42	56	A	35	36	A	56	NA	NA	NA	NA	NA

35	813822631035	257535	SANTHOSH KUMAR. S	MQ	NIL	7.7416	NA	NA	NA	NA	NA	NA	NA	NA	NA	52	34	32	54	54	52	58	50	31	32	46	52	44	A	46	32	40	46	NA	NA	NA	NA	NA
36	813822631036	257536	SARAVANAN. A	MQ	NIL	7.8315	66	64	37	40	50	52	40	52	36	12	66	45	62	54	47	60	52	43	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	813822631037	257537	SARIN SELOMITHIYA. S	MQ	NIL	8.4719	62	64	34	72	72	75	64	72	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	58	70	74	74	78	53	66	70	33	NA	NA	NA	NA	NA
38	813822631038	257538	SARUMATHI. M	MQ	NIL	9.1461	98	94	93	84	86	88	94	94	91	NA	NA	NA	A	NA	NA	NA	NA	NA	76	86	88	82	84	88	70	84	62	NA	NA	NA	NA	NA
39	813822631039	257539	SATHISH KUMAR. P	MQ	NIL	8.3483	NA	NA	NA	NA	A	NA	NA	NA	NA	68	52	61	54	52	44	64	70	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	66	58	38	92	72
40	813822631040	257540	SATHIYANARAYANAN. V K	MQ	1	*	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	34	44	44	52	39	54	44	13	28	66	70	66	54	32	58	42	30	NA	NA	NA	NA	NA
41	813822631041	257541	SHALINI. V	MQ	NIL	8.3385	54	50	38	50	58	58	26	44	50	A	NA	NA	NA	NA	NA	NA	NA	NA	36	48	56	52	72	66	54	A	47	NA	NA	NA	NA	NA
42	813822631042	257542	SHIFANA RABBANI. S	MQ	NIL	9.1461	98	94	82	86	74	92	94	94	81	88	88	88	80	86	82	84	92	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
43	813822631043	257543	SHRUTHI. K	MQ	NIL	8.2697	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	70	40	78	66	63	76	84	50	44	56	60	A	62	48	50	A	38	NA	NA	NA	NA	NA
44	813822631044	257544	SHURUTHI RAJAM. B	MQ	NIL	8.6742	72	50	52	64	60	66	66	54	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84	50	41	94	8
45	813822631045	257545	SIVAKAMI. A	GQ	NIL	8.4382	54	50	31	64	60	66	58	50	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	68	77	66	70	58	68	58	35	NA	NA	NA	NA	NA
46	813822631046	257546	SIVAMANGAYARKKARASI. R	MQ	NIL	8.8539	82	84	72	70	76	75	82	74	75	NA	A	NA	NA	NA	NA	NA	NA	NA	72	78	72	70	76	52	74	72	65	NA	NA	NA	NA	NA
47	813822631047	257547	SRI KRISHNAN. R	MQ	NIL	7.6966	70	18	28	36	58	44	50	26	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	42	28	35	50	28	33	42	A	28	NA	NA	NA	NA	NA
48	813822631048	257549	SRIRAM. M	MQ	NIL	8.5506	84	50	55	64	66	69	70	70	54	84	82	50	62	68	53	68	58	41	NA	NA	NA	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	NA
49	813822631049	257548	SRI VIGNESHWARI. K	GQ	NIL	8.4045	88	74	55	60	66	68	60	50	54	NA	A	NA	NA	NA	NA	NA	NA	NA	44	66	62	56	58	50	66	60	A	NA	NA	NA	NA	NA
50	813822631050	257550	SUBASRI. R	MQ	NIL	7.8539	42	24	33	44	A	54	50	34	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	56	58	64	A	52	44	A	52	40	NA	NA	NA	NA	NA
51	813822631051	257551	SUBHRAJA. S	MQ	NIL	8.6854	86	76	77	76	68	84	A	94	79	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	74	68	80	66	63	68	76	67	NA	NA	NA	NA	NA
52	813822631052	257552	SWETHA. S	GQ	NIL	8.7753	90	82	64	68	76	74	66	80	55	NA	NA	NA	NA	NA	NA	NA	0	NA	70	62	56	74	52	68	74	72	51	NA	NA	NA	NA	NA
53	813822631053	257553	VARADHARAJAN. K	GQ	NIL	8.0449	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	60	51	72	60	48	62	58	37	54	62	66	70	46	52	54	36	55	NA	NA	NA	NA	NA
54	813822631054	257554	VINEETH. K	MQ	NIL	8.0787	78	68	43	62	70	66	40	56	50	50	60	48	70	58	42	56	62	44	NA	NA	NA	NA	A	NA	NA	A	NA	NA	NA	NA	NA	NA
55	813822631055	257555	VISHALINI. V	GQ	NIL	8.7191	NA	NA	NA	NA	NA	NA	NA	NA	NA	82	76	66	66	66	67	78	74	62	74	72	65	60	64	73	70	68	52	NA	NA	NA	NA	NA
56	813822631056	257556	VIVINA. A	MQ	NIL	8.5169	60	72	26	72	66	77	68	64	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	64	68	64	66	46	69	70	78	48	NA	NA	NA	NA	NA
57	813822631057	257557	YOGESH. S	MQ	NIL	7.6067	56	52	53	36	46	40	80	70	53	NA	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	A	NA	NA	68	78	33	72	88
58	813822631058	257558	YUGENDRAN. R	GQ	NIL	8.0562	NA	NA	NA	NA	NA	NA	NA	NA	NA	34	82	45	50	62	39	58	58	31	44	52	56	54	A	55	64	A	40	NA	NA	NA	NA	NA
59	813822631059	257559	YUVAN SANKAR. B	MQ	NIL	7.8315	50	62	57	50	60	58	64	68	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	A	NA	NA	60	72	26	82	72
60	813822631060	257560	YUVARANI. V	MQ	NIL	8.0112	64	42	42	29	50	38	50	A	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	46	52	64	28	51	54	58	38	NA	NA	NA	NA	NA
No.of Failures(<50)							6	10	16	10	8	8	10	4	16	8	5	12	2	2	11	2	4	16	16	9	7	3	7	10	5	6	16	0	0	9	0	3