S8 CSE QUESTION BANK

COMPUTER SCIENCE & ENGINEERING

VIDYA ACADEMY OF SCIENCE AND TECHNOLOGY TECHNICAL CAMPUS
KILIMANOOR
(A unit of Vidya International Charitable Trust)
Accredited by NAAC with "B++" grade

Index

CST402 DISTRIBUTED COMPUTING

MODULE 1

Sl. No	Questions	Marks	KTU/KU Month/Year
1	Explain the applications of distributed computing.	4	KTU OCT 2023
2	Discuss the global state of a distributed system	6	KTU MAY 24
3	What do you mean by load balancing in a distributed environment.	4	KTU OCT 2023
4	"The absence of these two transparencies most strongly affects the utilization of distributed resources". Identify and explain the above two types of transparencies with examples.	4	KTU MAR 2020 KTU OCT 2023
5	In what all aspects distributed systems are better than centralized systems? Give examples of two applications for which distributed systems will be more suitable.	4	KTU SEP 2020 KTU OCT 2023
6	Explain the advantages of distributed system.	3	KTU May 2024
7	Discuss the challenges in designing a distributed system. Or Explain design issues and challenges of distributed computing	6 8	KTU SEP 2020 KTU JUNE 2023 KTU May 2024
8	List the Characteristics of Distributed System	3	KTU JUNE 2023
9	What are the Transparency requirements of Distributed System	3	KTU JUNE 2023
10	Compare logical and physical concurrency.	8	KTU JUNE 2023
11	What are the applications of Distributed Computing.	6	KTU JUNE 2023
12	Define causal precedence relation in distributed executions.	4	KTU May 2024
13	What are the different versions of send and receive primitives for distributed communication? Explain.	7	KTU May 2024
14	Explain the three different models of service provided by communication networks.	7	KTU May 2024
15	Explain about the Models of communication networks	8	KTU JUNE 2023 KTU OCT 2023

MODULE 2

Sl. No	Questions	Marks	KTU/KU Month/Year
1	Apply spanning tree-based termination detection algorithm in the following scenario. The nodes are processes 0 to 6. Leaf nodes 3, 4, 5, and 6 are each given tokens T3, T4, T5 and T6 respectively. Leaf nodes 3, 4, 5 and 6 terminate in the order, but before terminating node 5,it sends a message to node 1.	7	MODE QUESTION
2	Clearly mentoring assumptions, explain the rules of Termination detection using distributed snapshots.	6	KTU May 2024
3	Discuss the implementation of logical clock.	8	KTU May 2024
4	What are the basic properties of scalar time	3	KTU OCT 2023 KTU JUNE 2023
5	Explain about Termination Detection.	3	KTU JUNE 2023 KTU OCT 2023
6	Illustrate the Working of Spanning Tree based Termination Detection Algorithm.	10	KTU JUNE 2023 KTU OCT 2023
7	Define properties of Vector time	3	KTU JUNE 2023 KTU May 2024
8	Explain Ring based Election Algorithm in Detail.	8	KTU JUNE 2023
9	Explain how logical clock is implemented.	6	KTU JUNE 2023
10	Illustrate bully algorithm for electing a new leader. Does the algorithm meet liveness and safety conditions?	7	KTU OCT 2023
11	Illustrate ring algorithm for electing a new leader. Does the algorithm meet liveness and safety conditions	7	KTU May 2024
12	Specify the issues in recording a global state.	3	KTU May 2024
13	Explain in detail about Chandy Lamport algorithm.	6	KTU OCT 2023 KTU May 2024

MODULE 3

Sl.No	Questions	Marks	KTU/KU Month/Year
1	Illustrate Suzuki- Kasami's broadcast algorithm.	7	KTU JUNE 2023 KTU OCT 2023
2	Explain deadlock handling strategies	5	MODEL QUESTION
3	Explain Issues in deadlock detection.	5	KTU JUNE 2023 KTU OCT 2023
4	List the requirements of Mutual Exclusion Algorithms. Or List the three-performance metrics of Mutual Exclusion Algorithms.	3	KTU JUNE 2023 KTU May 2024
5	Explain Lamport's Algorithm for Mutual Exclusion.	8	KTU JUNE 2023 KTU May 2024
6	Explain in Detail about Deadlock handling Strategies in a Distributed environment	6	KTU JUNE 2023 KTU May 2024
7	Explain how Wait for Graph can be used in Deadlock Detection	6	KTU JUNE 2023 KTU OCT 2023
8	Explain and lllustrate Ricart-Agrawala algorithm for achieving mutual exclusion	7	KTU OCT 2023 KTU May 2024
9	Compare token based approach and Non token based approach.	3	KTU May 2024
10	Compare various models of deadlock.	7	KTU OCT 2023 KTU May 2024

MODULE 4

Sl. No	Questions	Marks	KTU/KU Month/Year
1	List the requirements of Mutual Exclusion Algorithms.	3	KTU JUNE2023

2	List the different types of Messages in Rollback Recovery.	3	KTU JUNE2023
3	Explain about Lamport's Bakery Algorithm Or Explain about Lamport's Bakery Algorithm for shared memory mutual exclusion.	8	KTUJUNE2023KTU OCT2023 KTU May2024
4	Explain Checkpointing and Rollback Recovery in Detail Or Explain log-based rollback recovery.	6	KTU JUNE2023 KTU OCT 2023 KTU May 2024
5	Explain the disadvantages of distributed shared memory Or Explain the advantages of distributed shared memory	8	KTUJUNE2023 KTU May 2024
6	Differentiate Consistent and Inconsistent State with example.	6	KTUJUNE2023KTU OCT2023 KTU May2024
7	List any three advantages of using Distributed Shared Memory	3	KTU OCT 2023
8	Explain no orphan's consistency condition.	3	KTU OCT 2023
9	What are the issues in failure recovery? Illustrate with suitable examples.	6	KTU OCT 2023
10	Discuss about the issues in implementing distributed shared memory software.	3	KTU May 2024
11	Differentiate between deterministic and non-deterministic events in log-based rollback recovery.	3	KTU May 2024

MODULE 5			
Sl.No	**Questions**	**Marks**	**KTU/KU Month/Year**
1	Summarize Distributed File System Requirements.	3	KTU JUNE 2023 KTU OCT 2023
2	Differentiate between whole file serving and whole file caching in Andrew file System.	3	KTU JUNE 2023
3	Which are the assumptions made in Consensus and Agreement Algorithm	8	KTU JUNE 2023 KTU May 2024
4	Explain about the file service architecture	6	KTU JUNE 2023
5	Explain SUN NFS architecture	8	KTUJUNE2023 KTU OCT2023
6	Define flat file service and directory service components.	3	KTU May 2024
7	Explain about Google File System.	6	KTUJUNE2023 KTU OCT2023 KTU May 2024
8	Define Byzantine agreement problem	3	KTU OCT 2023
9	Write in detail about distributed file system characteristics.	8	KTU May 2024
10	Discuss the architecture of Andrew file system	6	KTU May 2024
11	What are the advantages of Google File System.	3	KTU May 2024
12	Explain consensus algorithm for crash failures under synchronous systems	8	KTU OCT 2023

Course Code:CST 444

Course Name: SOFT COMPUTING

Module I			
Sl. No	Questions	Marks	Year
1	What is the role of activation function in Artificial Neural Network (ANN)? Write and explain any two activation functions of ANN.	3	KTU(R,S) MAY 2024
2	Compare and contrast biological neuron and artificial neuron	3	KTU(R,S) MAY 2024
3	Explain linear separability with an example of AND logic implementation using Hebb network..	6	KTU(R,S) MAY 2024
4	Implement AND NOT function using Mc-Culloch Pitts Neuron. Draw the architecture and threshold conditions	8	KTU(R,S) MAY 2024
5	Design a two input single output biased artificial neural network for the input X1, value 0.7 and X2, value 0.8 with weight values 0.2 and 0.3 respectively.The weight value associated with bias input is 0.9. Find the output Y for binary sigmoidal and bipolar sigmoidal activation functions.	8	KTU(R,S) MAY 2024
6	Using the Hebb rule, find the weights required to perform the following classifications of the given input patterns shown in figure. The "+" symbols represent the value "1" and empty space indicate "-1". Consider "1" belongs to the members of class (so has target value 1) and "0" does not belong to the members of class (so has target value -1). + + + + + + + + + + + + + + + "T" "O"	8	KTU(R,S) JUNE 2023
7	Define linear separability.Justify XOR function is non-linearly separable by a single decision boundary line	6	KTU(R,S) JUNE 2023
8	Implementation of logic gates using i) MP neuron ii) Hebb network --AND,OR,NOR,XOR ,AND NOT etc.	8	MODEL QUESTION
9	Implementing NAND Function Using M-P Neuron Model. Draw the architecture of the output network and threshold conditions.	9	KTU(S) AGUST 2024
10	Illustrate the five types of Neural Network Connections with suitable diagrams.	5	KTU(S) AGUST 2024

Module II			
1	Explain the training algorithm of Perceptron Network.	3	KTU(R,S) MAY 2024
2	Explain the architecture and the delta rule used for weight updation in Adaline network.	3	KTU(R,S) MAY 2024
3	State the significance of error portions δ_k , δ_j and how they are calculated in BPN algorithm. Explain the architecture of BPN with proper labelling	8	KTU(R,S) MAY 2024
4	Implement the logic function OR with binary inputs and bipolar targets using Perceptron network up to two epochs.	8	KTU(R,S) MAY 2024
5	Use Adaline to train OR function with bipolar inputs and targets. Perform 2 epochs of training. .	6	KTU(R,S) JUNE 2023
6	Implement AND function with binary inputs and bipolar targets using perceptron training algorithm	8	KTU(R,S) JUNE 2023
7	Discuss the training algorithm and explain the weight updates in back propagation networks	10	Model Question
8	Find the weights required to perform the following classifications using a perceptron network: The vectors (2, 2, -2, -2) and (2, -2, 2, -2) belong to a class with a target value 1. The vectors (-2, -2, -2, 2) and (-2, -2, 2, 2) belong to a class with a target value -1. Assume a learning rate of 1 and initial weights of [0,0,0,0][0, 0, 0, 0][0,0,0,0].	6	KTU(S) AGUST 2024
9	Explain the architecture and training algorithm of the Back Propagation Network. Describe the various terminologies used in the algorithm	9	KTU(S) AGUST 2024
10	Design and implement OR function with bipolar inputs and targets using Adaline network? Find the total mean square error of 3 epochs.	8	KTU(S) AGUST 2024
Module III			
1	Using your own intuition, plot the Fuzzy membership function for the “Age of people”?.	3	KTU(R,S) MAY 2024
2	Let A={(x1,0.5), (x2,0.1), (x3,0.9)} and B={(x1,0.4), (x2,0.4), (x3,0.5)} Find intersection, union and complement of both the fuzzy sets.	5	KTU(R,S) MAY 2024
3	Given two fuzzy sets A and B, compute the following set operations on A and B: a)Algebraic sum b) Algebraic product c) Bounded sum d) Bounded difference	8	KTU(R,S) MAY 2024

	$\underset{\sim}{A} = \left\{\frac{1}{2} + \frac{0.5}{3} + \frac{0.3}{4} + \frac{0.2}{5}\right\}$ $\underset{\sim}{B} = \left\{\frac{0.5}{2} + \frac{0.7}{3} + \frac{0.2}{4} + \frac{0.4}{5}\right\}$		
4	What is defuzzification? Explain different defuzzification methods with examples.	8	KTU(R,S) MAY 2024
5	Consider the fuzzy relation $R = \begin{bmatrix} 1 & 0.8 & 0 & 0.1 & 0.2 \\ 0.8 & 1 & 0.4 & 0 & 0.9 \\ 0 & 0.4 & 1 & 0 & 0 \\ 0.1 & 0 & 0 & 1 & 0.5 \\ 0.2 & 0.9 & 0 & 0.5 & 1 \end{bmatrix}$ Perform λ-cut operations for the values of λ = 0.9, 0+?	8	KTU(R,S) MAY 2024
6	Using intuition and your own definition of the universe of discourse, plot fuzzy membership functions to the following variables: Liquid level in the tank (a)Very small (b) Small (c) Empty (d) Full (e) Very full	8	KTU(R,S) JUNE 2023
7	Given two universes X= {x1, x2, x3, x4, x5} and Y= {y1, y2, y3, y4, y5}, the fuzzy sets A defined on X and fuzzy set B defined on Y are given below. $A = \{\frac{0.4}{x1} + \frac{0.7}{x2} + \frac{1}{x3} + \frac{0.8}{x4} + \frac{0.6}{x5}\}$ $B = \{\frac{0.2}{y1} + \frac{0.6}{y2} + \frac{1}{y3} + \frac{0.9}{y4} + \frac{0.7}{y5}\}$ i) Find the relation R = A × B Consider another fuzzy set C defined on the universe V = {v1, v2, v3} $C = \{\frac{0.4}{v1} + \frac{1}{v2} + \frac{0.8}{v3}\}$ ii) Find P = B × C. iii) Using max-min composition find RoP.	8	KTU(R,S) JUNE 2023
8	Consider the following two fuzzy sets: A ={0.2/1,0.3/2,0.4/3,0.5/4} and B = {0.1/1,0.2/2,0.2/3,1/4}. Find the algebraic sum, algebraic product, bounded sum, and bounded difference for the given sets.	10	KTU(S) AGUST 2024
9	Three fuzzy sets are defined as follows: A={(0.2/20),(0.3/50),(0.5/80),(0.7/110)} B={(0.8/1),(0.5/2),(0.6/3),(0.4/4),(0.2/5),(0.1/6)}and C={(0.4/100),(0.7/200),(0.9/300),(0.3/400)} Find: (i)R = A × B (ii) S = B × C (iii)T = RoS, using Max-Min composition (iv)T = RoS, using Max-Product composition.	10	KTU(S) AGUST 2024
10	State the conditions for fuzzy tolerance and fuzzy equivalence relations.	4	KTU(S) AGUST 2024
Module IV			

1	Explain any 3 mutation techniques with proper examples	3	KTU(R,S) MAY 2024
2	Draw the flow chart and explain the steps of Genetic Algorithm.	3	KTU(R,S) MAY 2024
3	What is the Fuzzy Inference System (FIS)? Illustrate Mamdani and Sugeno FIS with examples	8	KTU(R,S) MAY 2024
4	Explain any three selection techniques in genetic algorithm.	8	KTU(R,S) MAY 2024
5	Explain the stopping conditions for genetic algorithm.	6	Model question
6	Explain i) uniform crossover ii) Three parent crossover iii)shuffle crossover, iv) Precedence Preservative crossover of genetic algorithm with proper examples.	10	KTU(R,S) JUNE 2023
7	Explain the various encoding schemes used in genetic algorithm	5	KTU(R,S) JUNE 2023
8	With the help of examples, explain the various crossover techniques employed in Genetic Algorithms.	10	KTU(S) AGUST 2024
9	With the help of necessary block diagrams, compare Mamdani and Sugeno Fuzzy Inference Systems.	10	KTU(S) AGUST 2024
10	Explain different types of Encoding Techniques.	4	KTU(S) AGUST 2024
MODULE V			
1	Explain Dominance in Multi Objective Optimization Problem?	(3	KTU(R,S) MAY 2024
2	What are the characteristics of Neuro Fuzzy Hybrid systems?	3	KTU(R,S) MAY 2024
3	Explain convex and non-convex Multi Objective Optimization Problem. How to find a non -dominated set?	8	KTU(R,S) MAY 2024
4	Explain Genetic neuro Hybrid system in detail?	6	KTU(R,S) MAY 2024
5	What are the classifications of neuro-fuzzy hybrid systems? Discuss in detail	8	KTU(R,S) MAY 2024
6	What is pareto optimality?	6	KTU(R,S) MAY

			2024
7	Explain convex and non-convex MOOP	8	KTU(R,S) JUNE 2023
8	What are the properties of dominance relation? .	8	KTU(R,S) JUNE 2023
9	Explain the concepts of dominance and Pareto-optimality in the context of multi- objective optimization. How can these concepts be used to identify optimal solutions in a multi-objective optimization problem?	10	KTU(S) AGUST 2024
10	Illustrate the different steps in genetic-neuro hybrid systems with the help of a neat block diagram, and list out its advantages also.	10	KTU(S) AGUST 2024

CS 476 - MOBILE COMPUTING

MODULE 1

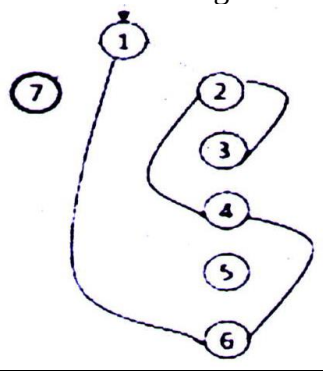
S.No.	Questions	Mark	Month & year
	Module-1		
1.	Explain different types of middleware and gateways required in the architecture of mobile computing	3 & 6	April/2018, Sept -2020& May/2019,24 August 24
2.	Explain the major segments to support mobile computing function with diagram	3 & 5	April/2018, Aug-24
3.	Explain in detail the three-tier architecture of mobile computing	9 & 7	April/2018, May, Aug-24
4.	Compare nomadic mobile computing and pervasive mobile computing	5	May/2019
5.	Discuss different types of mobility in mobile computing functions?	5 & 7	May/2019, 24
6.	Differentiate between Telecommunication networks and Internet?	3	Sept -2020, August-24
7.	Explain the various applications of mobile computing	5	Sept -2020, August-24
8.	List out and explain the design issues for mobile computing	4 &7	Sept -2020, May 24
9.	Describe internet-Ubiquitous networks mentioning the significance and functions of core, edge and access network with diagram	7 & 9	May-24, Aug-24
	Module-2		
1.	Compare and contrast Satellite systems-GEO, LEO and MEO	3	April/2018
2.	Elaborate the working of following medium access control protocols: a. TDMA b. FDMA c.CDMA	9	April/2018 & Sept-2020 May-24
3.	Explain the architectural components and services of GSM technology with suitable diagrams	9	May/2019 & Sept -2020, Aug-24, May -24
4.	Why spread spectrum is used in wireless communication? List the benefits?	3	Sept -2020, May -24, Aug-24
5.	List out two Hand-off prioritization techniques?	4	Sept -2020, Aug-24
6.	Apply Direct Sequence Spread Spectrum (DSSS) to the user data 01 using the chipping sequence 0110101. Draw the encoding step	6	Aug-24
7.	Explain Geo stationary earth orbits and mention its advantages and	6	Aug-24

	disadvantages		
8.	Why does the multiple access technologies are important in wireless communication system?	3	May -24,
9.	Explain the working of Satellite system with diagram.	3	May -24,
10.	Explain about any two Satellite Orbits.	3	Aug -24,
Module-3			
1.	Explain in detail the architecture, multiple access and addressing mechanisms in IEEE 802.11 wireless LAN standard	9	April/2018, May/2019, Aug-24 May-24
2.	Distinguish between Adhoc network and Infrastructure network	3	May/2019
3.	Explain the architecture of IEEE 802.11 standard with suitable diagram	5 & 7	May/2019, May 24
4.	Draw and explain MAC frame format of IEEE 802.11	4	May/2019, Aug-24
5.	Explain the working procedure and protocol stack architecture of Bluetooth technology with suitable diagrams	10	May/2019 & Sept -2020, May-24, Aug-24
6.	Explain the design goals that has to be considered for designing the Wireless LAN	8	Aug-24
7.	Explain MAC architecture with figure	6	Aug-24
8.	Discuss the protocol architecture of HIPERLAN	7	Aug-24, May-24
9.	What is meant by routing in Ad-hoc networks?	3	May-24
10.	Write a short note on WTLS(Wireless Transport Layer Security)	3	May-24
Module-4			
1.	Describe the working of DHCP in Mobile computing with neat diagrams	3	April/2018, Sept -2020 May/2019, May-14
2.	Explain slow start mechanism in conventional TCP, what is the impact of high error rate and missing acknowledgements in wireless network on slow start?	10	April/2018
3.	Compare the following mobile transport layer protocols (i) Indirect TCP (ii) Snooping TCP (iii) Mobile TCP (iv) T-TCP	10	April-2018, May/2019 Aug-24
4.	Write the limitations of conventional TCP (for wired network) to be used in mobile networks	3	Sept -2020
5.	Describe the working of Dynamic Source Routing with suitable example	9	May/2019, Sept -2020 May-14
6.	Describe the following Terminologies used in Mobile IP a) Home Agent (HA) b) Foreign Agent (FA) c) Care-of Address (COA)	3 & 7	Sept -2020 Aug-24
7.	With neat sketches and illustration, discuss the WAP architecture in detail.	10	Sept -2020 & May 24
8.	What is Proactive and Reactive routing Protocols	3	Aug-24
9.	With the help of an example show the routing table, show the routing table creation using Destination Sequence Distance Vector Routing	7	Aug-24

	protocol in MANETS		
10.	Explain the router discovery process in Mobile IP.	7	May 24
11.	Write about Wireless Datagram Protocol (WDP).	7	May 24
Module-5			
1.	What are the major components of security, explain each with examples	10 & 3	April/2018 May-24, Aug-24
2.	Discuss about various security issues in mobile computing	10	May/2019
3.	What are the benefits of 5G wireless technology?	5	Sept -2020 & May-24
4.	Discuss about the various security issues in mobile networks?	6	Sept -2020
5.	Explain the LTE architecture and Interface?	4	Sept -2020
6.	Describe the working principle of Orthogonal Frequency Division Multiplexing.	8	Aug-24, May-24
7.	List out the Characteristics of Next Generation Network (NGN)	6	Aug-24, May-24
8.	List and explain about the pillars of 5G.	6	Aug-24, May-24
9.	What is the purpose of Multi Protocol Label Switching? How is packet forwarding done using MPLS?	8	Aug-24

CST 458 SOFTWARE TESTING

MODULE 1			
SL.NO	**QUESTIONS**	**MARK**	
1	List out any three popular software bugs.	3	MAY 2024
2	Write the differences between Failure ,Error ,Fault and Defect.	3	OCT 2023, AUG 2024
3	Explain various thinking revers of testing based on test maturity.	7	AUG 2024 MAY 2024
4	Describe the different types of testing widely used with necessary examples.	8	AUG 2024
5	Explain coverage crit8ria for testing and identify' the characteristics of a good coverage criteria.	6	AUG 2024
6	How is verification and validation differs in software testing?	8	OCT 2023 AUG 2024 MAY 2024
7	Explain the different types of System Testing.	9	MAY 2024
8	Write the positive and negative test cases for a library management software.	8	MAY 2024
9	Discuss various types of testing methods with examples a. Black Box Testing b. White Box Testing c. Gray box Testing	6	JUNE 2023 AUG 2024
10	Explain coverage criteria for testing and identify the characteristics of a good coverage criteria.	8	JUNE 2023
MODULE 2			
1	Write a short note on defect prevention.	3	AUG 2024
2	Describe the roles of presenter and moderator in a review team.	3	AUG 2024
3	With a neat diagram explain dynamic unit testing.	7	OCT 2023 AUG 2024
4	Explain Junit framework for unit testing.	7	AUG 2024 OCT 2023 JUNE 2023
5	Explain with suitable example the concepts of mutation testing, mutant, mutation score, killable mutant, and stubborn mutant. What do you mean by equivalent mutant?	6	OCT 2023 MAY2024 AUG 2024
6	With the help of a diagram. explain the steps in the code review process.	7	AUG 2024
7	Explain the use of stubs and test drivers.	3	MAY 2024
8	Outline two types of static unit testing strategies.	3	MAY 2024

9	What is Dynamic unit testing and Control flow testing.	7	MAY 2024 JUNE 2023
10	Discuss the concept of mutation testing with testing process.	6	JUNE 2023
	MODULE 3		
1	Consider the graph given below. List test requirement for Node coverage. Edge coverage, Prime Path Coverage  	5	AUG 2024 MAY 2024
2	With a neat graph explain touring ,side trips and detours.	3	JUNE 2023 OCT 2023 MAY 2024 AUG 2024
3	Explain the following concepts with examples. (i) Call graph (ii) Inheritance graph (iii) Coupling du-pairs.	9	AUG 2024

4	Using the code snippet given in below. perform data flow analysis and find all valid DU pairs.
	
	public int gcd(int x. int y)
	{
	int tmp:
	while(y!=0)
	{
	tmp = x%y.:
	x=y;y=tmp;
	}
	return x;
	}
		8	AUG 2024

5	List and explain any three path selection coverage criteria.	6	AUG 2024
6	Explain structural graph coverage for Design Elements	3	JUNE 2023
7	Explain any two methods for computing the cyclomatic complexity	3	AUG 2024

8	Draw CFG fragment for (i) Simple f(ii) Simple while loop	5	MAY 2024

9	Draw Control Flow Graph for the following function
	.
	{
	int low, high, mid;
	low = 0; high = n - 1;
	while (low <= high) { mid = (low + high)/2;
	if (X< V[mid])
	high = mid - 1; else if (X > V[mid])
	low = mid + 1;
	else
	return mid;
	}
	return -1;
	}
		6	JUNE 2023

10	Draw CFG to represent Exception handling.	8	JUNE 2023
	MODULE 4		
1	Summarize the testing concepts of Howden	3	MAY 2024 OCT 2023
2	Give the guidelines for equivalence class partitioning.	3	AUG 2024
3	How is Boundary Value Analysis differ from Equivalence Partitioning	8	AUG 2024 OCT 2023
4	List the characteristics of functionality based approach and interface based approach.	6	AUG 2024 OCT 2023
5	Consider a situation in real life and explain concept of decision table.	6	OCT 2023
6	Explain the following terms a. Pair-wise coverage b. T-wise coverage c. Base choice coverage d. Multiple base choice coverage	8	AUG 2024 MAY 2024 OCT 2023
7	What is functional testing and highlight the important steps.	3	AUG 2024 MAY 2024 JUNE 2023
8	Preconditions are excellent sources for functionality -based characteristics. Justify	3	JUNE 2023
9	Explain orthogonal Array Testing	6	JUNE 2023
10	List the guidelines for performing Boundary value Analysis.	8	JUNE 2023

MODULE 5			
1	What are the advantages of Grey box testing.	3	MAY 2024 OCT 2023
2	Explain the concept of symbolic execution with an example.	3	OCT 2023
3	What is Parameterized Test in Junit? Explain with a Java program.	6	AUG 2024 OCT 2023
4	Explain the statistical testing approach especially useful when system to be tested has huge data inputs.	8	OCT 2023
5	Write the advantages of Symbolic execution with respect to grey box testing.	6	AUG 2024 OCT 2023

6	For the following program code, perform symbolic execution
	Int Exp(A,N)
	int int Exp(int a.int n)
	{
	if (n<0)
	throw new ArithmeticException0:
	else (
	int out=l; _
	while(n>0){
	out: out + a;
	n--;
	)
	return out;
	)
	)
		10	AUG 2024

7	Write the difference between Regression Testing and Orthogonal Array Testing.	3	AUG 2024 MAY 2024 JUNE 2023
8	What is Parameterized Unit testing.	3	JUNE 2023
9	Explain symbolic testing and Symbolic Execution Tree.	6	JUNE 2023
10	Why Grey Box testing is chosen and write the methodology behind it.	8	JUNE 2023