Module Name : MTech Network and Information Security-E Exam Date : 18-Sep-2020 Batch : 12:30-14:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Object	tive Question			
1	1	Binary search algorithm cannot be applied to	4.0	1.00
		Al pointer array		
		A2 sorted linear array		
		A3 : sorted binary trees		
		A4 sorted linked list		
Object	tive Question			
	2	Which of the following are the applications of stack?	4.0	1.00
		A1 : Function calls		
		A2 : Large number Arithmetic		
		A3 Evaluation of arithmetic expressions		
		A4 Procedures		
Object	tive Question			
3	3	If a node having two children is deleted from a binary tree, it is replaced by its	4.0	1.00
		A1 Preorder predecessor		
		A2 inorder predecessor		
		A3 Inorder successor		
		A4 Preorder successor		
Object	tive Question			
4	4	The degree of any vertex of graph is ?	4.0	1.00
		A1 : The number of edges incident with vertex		

	A2 Number of vertex in a graph		
	A3 Number of vertices adjacent to that vertex :		
	A4 : Number of edges in a graph		
bjective Question			
5	The height of tree is the length of the longest root-to-leaf path in it. The maximum and minimum number of nodes in a binary tree of height 5 are	4.0	1.00
	A1 63 and 6, respectively		
	A2 64 and 5, respectively		
	A3 32 and 6, respectively		
	A4 31 and 5, respectively		
Dbjective Question			
6	In the balanced binary tree shown below, if a node inserted as child of the node R, how many nodes will become unbalanced?	4.0	1.00
	nodes will become unbalanced?		
	Recome unbalanced?		
	PM		
	R		
	Al 2		
	$A_{1}^{A_{2}}$		
bjective Ouestion	A^{1}_{2} A^{2}_{3} A^{3}_{1} A^{3}_{1}		
Dbjective Question	A^{1}_{2} A^{2}_{3} A^{3}_{1} A^{3}_{1}	4.0	1.00
Dbjective Question 7	$ \begin{array}{c} $	4.0	1.00

A3 7 : A4 :

01.1	i o i								
Objective Question									
8	8	For merging two unsorted list of size p and q into sorted list of size $(p + q)$. The time complexity in terms of number of comparisons is:	4.0	1.00					
		$ \stackrel{A1}{:} O(\log p + \log q) $							
		$ \stackrel{A2}{:} O(p \log p) + O(q \log q) $							
		$\begin{array}{c} A3\\ \vdots\\ O(p+q)\end{array}$							
		A4 O(log pq)							
Obie	tive Question								

5	· ·			
9	9	More than one word are put in one cache block to	4.0	1.00
		A1 Exploit the temporal locality of reference in a program :		
		A2 Exploit the spatial locality of reference in a program :		
		A3 Reduce the miss penalty		
		A4 Increase the miss penalty:		

Objective Question

10	10	The process of assigning load addresses to the various parts of the program and adjusting the code and date in the program to reflect the assigned addresses is called	4.0	1.00
		A1 Assembly		
		A2 Parsing		
		A3 Relocation		
		A4 Symbol Resolution		
Objec	tive Question			
11	11	Which of the following is not a form of memory?	4.0	1.00
		A1 Instruction cache		

		A2 : Instruction register		
		A3 Instruction opcode		
		A4 Translation lookaside buffer		
Dbjec	tive Question			
12	12	In addressing mode, the operands are stored in the memory. The address of the corresponding memory location is given in a register which is specified in the instruction.	4.0	1.00
		A1 Register direct		
		A2 E Register indirect		
		A3 Base indexed		
		A4 : Displacement		
Objec	tive Question			
13	13	Which one of the following characteristics of RAM makes it not suitable for permanent storage?	4.0	1.00
		A1 : Its speed		
		A2 Its cost		
		A3 It is volatile		
		A4 Both Its speed and Its cost		
Obiec	tive Question			
14	14	The initial value of the register $R = 1101 1101$. What will be the sequence of binary values in R after a logical shift-left,	4.0	1.00
		followed by a circular shift-right.		
		A1 0101 1101 :		
		A2 0101 1100		
		A3 0101 1111		
		A4 : 0101 1001		
01.1	· • •			
Objec 15	tive Question	The amount of ROM needed to implement a 4 bit multiplier is	4.0	1.00

		A1 : 1024 bits		
		A2 2048 bits		
		A3 : 516 bits		
		A4 258 bits		
Objec	tive Question			
16	16	The 8-bit registers AR, BR, CR and DR initially have the following values: $AR = 1111\ 0010$ BR = 1111 1111 $CR = 1011\ 1001$ DR = 1110 1010 What will be the 8-bit values in each register after the execution of the microoperation $AR \leftarrow AR + BR$.	4.0	1.00
		A1 AR = 1111 0001, BR = 1111 1111 : CR = 1011 1001, DR = 1110 0010		
		A2 AR = 1111 0001, BR = 1111 1111 : CR = 1011 1001, DR = 1110 1010		
		A3 AR = 1111 0001, BR = 1111 1111 : CR = 1111 1001, DR = 1110 1010		
		A4 AR = 1111 0001, BR = 1110 1110 : CR = 1011 1001, DR = 1110 1010		
	tive Question			
17	17	The Primary purpose of an Operating System is?	4.0	1.00
		A1 To make computers easier to use		
		A2 : To allow people to use the computer		
		A3 : To keep system programs functioning		
		A4 To make the most efficient use of the computer hardware		
Objec	tive Question			
18	18	The category of Software most appropriate for controlling the design and layout of complex document like newsletters and brochure is:	4.0	1.00
		A1 Computer Aided Design		
		A2 Word Processing		
		A3 Web Page Authoring		

		A4 D. L. D. HULL		
		A4 Desktop Publishing		
	tive Question			
19	19	Which of the following operating system reads and reacts in actual time?	4.0	1.00
		A1 2 Quick Response System		
		A2 Real Time System		
		A3 : Time Sharing System		
		A4 Batch Processing System		
Objec	tive Question			
20	20	The maximum size of a write file is limited to only?	4.0	1.00
		Al Name of the file		
		A2 Extension of the file		
		A3 : The amount of memory in Computer		
		A4 Type of the file		
Objec	tive Question			
21	21	The memory which allocates space for DOS and application is called	4.0	1.00
		A1 Expanded memory		
		A2 Cache memory :		
		A3 Virtual memory :		
		A4 Conventional memory		
Dbjec	tive Question			
2	22	The Operating System creates from the physical computer?	4.0	1.00
		A1 Virtual Computers		
		A2 Virtual Space		

		A3 Virtual Device		
		A4 Virtual machines		
Ohier	ctive Question			
23	23	In the mergesort algorithm, what is the asymptotic running time of the step of merging sorted subarrays?	4.0	1.00
		$\stackrel{A1}{:} O(\log n)$		
		$\stackrel{A2}{:}$ O(n)		
		$ \begin{array}{c} \text{A3}\\ \text{:}\\ \text{:} \end{array} $ $O(n \log n)$		
		$^{A4}_{:}$ O(n ²)		
	ctive Question		4.0	
24	24	Which of these sorting algorithms has the best (lowest) asymptotic running time when the input list is already sorted?	4.0	1.00
		Al Insertion sort		
		A2 Selection sort		
		A3 Quick sort (choosing the first element of the array as pivot)		
		A4 : Merge sort		
	ctive Question			
25	25	What is the efficient asymptotic running time to find the median of a sorted array of size N?	4.0	1.00
		Al O(n)		
		$\stackrel{A2}{:} O(\log n)$		
		A3 O(1)		
		A4 O(n log n)		
<u> </u>				
Objec 26	ctive Question		4.0	1.00
20	20	The features of dynamic programming is (are)	4.0	1.00
		 I. Optimal solutions to sub problems are retained so as to avoid recomputing their values. II. Decision sequences containing subsequences that are sub optimal are not considered. III. Solution is found for overlapping subproblems 		

	A1 I :		
	A2 II :		
	A3 III		
	A4 : I, II and III :		

27	27	Multistage graphs are solved using technique	4.0	1.00
		A1 Greedy		
		A2 : Dynamic programming		
		A3 Backtracking		
		A4 Branch and Bound		
	tive Question			
28	28	CNF Satisfiability problem is	4.0	1.00
		A1 NP		
		A1 NP A2 NP Complete		
		A2 NP Complete		

9	29	The worst case time complexity of the matrix chain multiplication algorithm is	4.0	1.00
		A1 O(n)		
		$\stackrel{A2}{:}$ O(n ²)		
		$\stackrel{A3}{:}$ O(n ³)		
		$\stackrel{A4}{:}$ O(n ⁴)		
1.	tive Question			

30	30	The design technique known as is very similar to backtracking in that it searches a tree model of the solution space and is applicable to a wide variety of discrete combinatorial problems	4.0	1.00
		A1 Branch and Bound		
		A2 : Dynamic programming		
		A3 Heuristic backtracking		
		A4 : Greedy approach		
Objec	tive Question			
31	31	If the data is present in a register and it is referred using the particular register, then it is	4.0	1.00
		A1 Direct Addressing Mode		
		A2 Register Addressing Mode		
		A3 Indexed Addressing Mode		
		A4 Immediate Addressing Mode		
	tive Question			
32	32	The pulse width of the signal INIT at the receiving terminal must be more than	4.0	1.00
		A1 10 microseconds		
		A2 20 microseconds		
		A3 40 microseconds		
		A4 50 microseconds		
Objec	tive Question			
33	33	In memory-mapped scheme, the devices are viewed as	4.0	1.00
		A1 : Distinct I/O Devices		
		A2 : : :		
		A3 Only Input Devices		
		A4 Only Output Devices		

Objec	tive Question			
34	34	The number of hardware interrupts that the processor 8085 consists of is	4.0	1.00
		A1 ,		
		A1 1 :		
		A2 3		
		A3 5		
		A4 : 7		
Objec 5	tive Question		4.0	1.00
5	55	When non-specific EOI command is issued to 8259A it will automatically	т.0	1.00
		A1 Set the ISR		
		A2 Executive ISR		
		42		
		A3 Set the INTR		
		A4 p		
		A4 Reset the INTR :		
Objec	tive Question			
36	36	By adding which of the following, the minimum mode of 80286 gives the multibus interface of 80286?	4.0	1.00
		A1 : Bus Controller		
		A2 Bus Arbiter		
		A3 : Interrupt Controller		
		A4 DMA		
Objec 87	tive Question	Given the basic ER and relational models, which of the following is INCORRECT?	4.0	1.00
		Given the basic EX and relational models, which of the following is invOKKEC1 ?		
		A1 An attribute of an entity can have more than one value		
		A2 An attribute of an entity can be composite		
		A3		
		$\frac{A3}{A}$ In a row of a relational table, an attribute can have more than one value		

		A4 In a row of a relational table, an attribute can have exactly one value or a NULL value :		
9bjec 8	38	Which of the following relational query languages have the same expressive power? 1. Relational algebra 2. Tuple relational calculus restricted to safe expressions 3. Domain relational calculus restricted to safe expressions A1 2 and 3 only : 1 and 3 only : 1 and 2 only	4.0	1.00
		A4 1, 2 and 3		
Dbjec	tive Question			
99	39	Which level of locking provides the highest degree of concurrency in a relational database? A1 Page A2 Table A3 Row A4 Page, table and row level locking allow the same degree of concurrency	4.0	1.00
	tive Question			
40	40	 A prime attribute of a relation schema R is an attribute that appears A1 In all candidate keys of R A2 In some candidate keys of R A3 In a foreign key of R A4 Only in the primary key of R 	4.0	1.00
biec	tive Question			
1	41	 Consider the following two statements about database transaction schedules: 1. Strict two-phase locking protocol generates conflict serializable schedules that are also recoverable. 2. Timestamp-ordering concurrency control protocol with Thomas' Write Rule can generate view serializable schedules that are not conflict serializable. Which of the above statements is/are TRUE? 	4.0	1.00

Objective Queedse Image: A state of the state of the SQL query Image: A state of the SQL query				
Notice in the connection of site in the connection of site in the second site of the SQL query 100 Conserve Question 100 12 42 42 42 42 42 43 41 14 100 15 100 16 100 17 100 18 100 19 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100		A1 Both 1 and 2 :		
Objective Question At Notither 1 nor 2 Consider the following relation Consider the following relation Consider the following relation SELECT UL address FROM University U1 such that it always finds the addresses of colleges with maximum number of students? Al WHERE UL aum_of_stu >= Alt (select U2 num_of_stu from University U2) A ² WHERE UL aum_of_stu >= Alt (select max(U2, num_of_stu) from University U2) A ³ WHERE UL aum_of_stu > Any (select max(U2, num_of_stu) from University U2) A ⁴ WHERE UL aum_of_stu > Any (select max(U2, num_of_stu) from University U2) A ⁴ Al A ³ SVN flooding A ³ A ³ A ⁴ Al ACK flooding A ³ SVN flooding A ³ SVN flooding A ⁴ A ⁴ A ⁴ In the method, the the st		A2 1 only		
Objective Question Image: Consider the following relation Image: Consider the following relation Image: Consider the following relation 42 42 42 42 52 Consider the following relation 100 Consider the following relation Consider the following relation 0 million 100 SELECT UL address SELECT UL address 64 1 FROM University UD such that it always finds the addresses of colleges with maximum number of students? 1 41 WHERE ULnum of su >= All (select U2.num of stu from University U2) 1 1 A2 WHERE ULnum of su >= Any (select U2.num of stu from University U2) 1 1 A3 WHERE ULnum of su >= Any (select max(U2.num of stu from University U2) 1 1 A3 WHERE ULnum of su > AN (select max(U2.num of stu from University U2) 1 1 A4 The connection establishment procedure in TCP is susceptible to a serious security problem called the		A3 2 only		
42 42 42 Constation rule following claims 4.0 1.00 Generation rules conjection Which of the following claims will be needed at the end of the SQL query SELECT ULaddress 4.0 1.00 SELECT UL address FROM University (college, differs, num_of_stu > All (select U2.num_of_stu from University U2) Al Which of the following claims will be needed at the end of the SQL query SELECT UL address FROM University U1 acc that it always finds the addresses of colleges with maximum number of students? Al WHERE U1.num_of_stu >= All (select U2.num_of_stu from University U2) Al WHERE U1.num_of_stu >= Any (select max(U2.num_of_stu from University U2) Al WHERE U1.num_of_stu >= Any (select max(U2.num_of_stu from University U2) Al WHERE U1.num_of_stu >= Any (select max(U2.num_of_stu) from University U2) Al WHERE U1.num_of_stu >= Any (select max(U2.num_of_stu) from University U2) Al		A4 Neither 1 nor 2		
42 42 Consider the following epitons will be needed at the end of the SQL query 4.0 1.00 SELECT UL address SELECT UL address SELECT UL address 4.0 1.00 A1 WHERE UL num_of_stu >= All (select U2.num_of_stu from University U2) A1 WHERE UL num_of_stu >= All (select U2.num_of_stu from University U2) A2 WHERE UL num_of_stu >= Any (select max(U2. num_of_stu from University U2) A3 WHERE UL num_of_stu >= Any (select max(U2. num_of_stu from University U2) A3 WHERE UL num_of_stu >= Any (select max(U2. num_of_stu from University U2) A4 A4 A0 1.00 Objective Question 43 43 The connection establishment procedure in TCP is susceptible to a serious security problem called the	Objective Question			
Dejective QuestionFROM University U1 such that it always finds the addresses of colleges with maximum number of students? $\stackrel{A1}{:}$ WHERE U1.num_of_stu >= All (select U2.num_of_stu from University U2) $\stackrel{A2}{:}$ WHERE U1.num_of_stu >= Any (select U2.num_of_stu from University U2) 		Cinema(theater, address, capacity)	4.0	1.00
$ \begin{array}{ c c c c } \hline \begin{array}{ c } \hline \begin{array}{ c } \hline \end{array} \\ \hline \begin{array}{ c c } \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{ c } \hline \end{array} \\ \hline \begin{array}{ c } \hline \end{array} \\ \hline \begin{array}{ c } \hline \end{array} \\ \hline \begin{array}{ c } \hline \end{array} \\ \hline \begin{array}{ c } \hline \end{array} \\ \hline \begin{array}{ c } \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \\ \hline \\ \hline$				
$ \begin{array}{ c c c c } \hline A^2 & \text{WHERE U1.num_of_stu} >= \text{Any (select U2.num_of_stu from University U2)} \\ \hline A^3 & \text{WHERE U1.num_of_stu} > \text{All (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{WHERE U1.num_of_stu} > \text{Any (select max(U2.num_of_stu) from University U2)} \\ \hline A^4 & \text{ACK flooding} \\ \hline A^2 & \text{FIN flooding} \\ \hline A^2 & \text{FIN flooding} \\ \hline A^3 & \text{SYN flooding} \\ \hline A^4 & \text{Ping Flooding} \\ \hline A^4 & \text{Ping Flooding} \\ \hline A^4 & \text{Ping Flooding} \\ \hline A^1 & \text{Nonpersistent} \\ \hline \\ \hline A^1 & \text{Nonpersistent} \\ \hline \end{array} $		such that it always finds the addresses of colleges with maximum number of students?		
A3 WHERE UI.num_of_stu > All (select max(U2. num_of_stu) from University U2) A4 WHERE UI.num_of_stu > Any (select max(U2. num_of_stu) from University U2) A4 WHERE UI.num_of_stu > Any (select max(U2. num_of_stu) from University U2) A4 WHERE UI.num_of_stu > Any (select max(U2. num_of_stu) from University U2) A4 WHERE UI.num_of_stu > Any (select max(U2. num_of_stu) from University U2) A4 WHERE UI.num_of_stu > Any (select max(U2. num_of_stu) from University U2) A1 A1 ACK flooding A1 A1 ACK flooding A1 A1 ACK flooding A1 A1 ACK flooding A1 A1<		A1 WHERE U1.num_of_stu >= All (select U2.num_of_stu from University U2)		
Objective Question A4 WHERE U1.num_of_stu > Any (select max(U2. num_of_stu) from University U2) Image: Contract of the connection establishment procedure in TCP is susceptible to a serious security problem called theattack. 4.0 1.00 A1 ACK flooding A2 FIN flooding A3 SYN flooding A4 Image: A2 FIN flooding A3 SYN flooding A4 Ping Flooding Image: A3 SYN flooding A4 Ping Flooding Image: A4 Ping Flooding Image: A4 Ping Flooding Image: A4 Ping Flooding Image: A4 I		A2 WHERE U1.num_of_stu >= Any (select U2.num_of_stu from University U2)		
Objective Question Image: Construction of the connection establishment procedure in TCP is susceptible to a serious security problem called the attack. 4.0 1.00 A1 ACK flooding A.1 A.1 ACK flooding A.1 A.1 A.1 ACK flooding A.1		A3 WHERE U1.num_of_stu > All (select max(U2. num_of_stu) from University U2)		
43 43 The connection establishment procedure in TCP is susceptible to a serious security problem called the attack. 4.0 1.00 A1 ACK flooding A2 FIN flooding A3 SYN flooding A3 SYN flooding A4 Ping Flooding A4 Ping Flooding Cbjective Question In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it 4.0 1.00 44 In the method, after the station finds it idle. A1 Nonpersistent 4.0 1.00		A4 WHERE U1.num_of_stu > Any (select max(U2. num_of_stu) from University U2)		
43 43 The connection establishment procedure in TCP is susceptible to a serious security problem called the attack. 4.0 1.00 A1 ACK flooding A2 FIN flooding A3 SYN flooding A3 SYN flooding A4 Ping Flooding A4 Ping Flooding Cbjective Question In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it 4.0 1.00 44 In the method, after the station finds it idle. A1 Nonpersistent 4.0 1.00	Objective Question			
A2 FIN flooding A3 SYN flooding A4 Ping Flooding		The connection establishment procedure in TCP is susceptible to a serious security problem called the attack.	4.0	1.00
A3 SYN flooding A4 Ping Flooding Objective Question 44 In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it 44 A1 A1 Nonpersistent		Al ACK flooding		
A4 Ping Flooding Objective Question 44 44 In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it continuously senses the line until it finds it idle. A1 Nonpersistent		A2 FIN flooding		
Objective Question 44 44 In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it continuously senses the line until it finds it idle. A1 Nonpersistent		A3 SYN flooding		
44 44 In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it 4.0 1.00 A1 Nonpersistent :		A4 Ping Flooding		
44 44 In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it 4.0 1.00 A1 Nonpersistent :				
A1 Nonpersistent		In the method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it	4.0	1.00
A2 1-persistent		Nonpersistent		
		A2 1-persistent		

		A3 P-persistent		
		A4 : n-persistent		
biect	tive Question			
5	45	In a block, the mask is 255.255.192.0; What is the prefix length?	4.0	1.00
		In a block, the mask is 255.255.172.0, what is the prenx length:		
		A1 /20 :		
		A2 /24		
		A3 /23		
		A4 /18 :		
bject	tive Question			
6	46	Station A uses 32 byte packets to transmit messages to Station B using a sliding window protocol. The round trip delay between A and B is 80 milliseconds and the bottleneck bandwidth on the path between A and B is 128 kbps. What is the optimal window size that A should use?	4.0	1.00
		A1 20 :		
		A2 40		
		A3 160		
		A4 320		
bject	tive Question			
7	47	An organization has a class B network and wishes to form subnets for 60 departments. The subnet mask would be:	4.0	1.00
		A1 255.255.0.0 :		
		A2 : 255.255.64.0		
		A3 255.255.128.0		
		A4 255.255.252.0		
bject	tive Question			
8	48	A computer on a 10Mbps network is regulated by a token bucket. The token bucket is filled at a rate of 2Mbps. It is initially filled to capacity with 16Megabits. What is the maximum duration for which the computer can transmit at the full 10Mbps?	4.0	1.00
		A1 : 1.6 seconds		

		A2 2 seconds		
		A3 5 seconds		
		A4 8 seconds		
hiect	ive Question			
	49	Consider the following message $M = 11001001$. The cyclic redundancy check (CRC) for this message using the polynomial $x^{3}+1$ is	4.0	1.00
		A1 011 :		
		A2 100		
		A3 110		
		A4 111 :		
oiect	ive Question			
	50	The code 10011100101 received. Using hamming encoding algorithm, what is the original code sent?	4.0	1.00
		A1 1010110 :		
		A2 1000101		
		A3 1011001		
		A4 1001101 :		
hiect	ive Question			
	51	Converting each of the final states of F to non-final states and old non-final states of F to final states, FA thus obtained will reject every string belonging to L and will accept every string, defined over Σ , not belonging to L. is called	4.0	1.00
		A1 Transition Graph of L		
		A2 Regular expression of L		
		A3 Complement of L		

	tive Question			
52	52	To describe the complement of a language, it is very important to describe the of that language over which the language is defined.	4.0	1.00
		Al Alphabet		
		A2 : Regular Expression		
		A3 String		
		A4 Word		
Objec	tive Question			
53	53	Recursively enumerable languages are not closed under	4.0	1.00
		A1 Intersection		
		A2 Union		
		A3 Complementation		
		A4 : Intersection with a regular set		
Obiec	tive Question			
54	54	A language L satisfies the Pumping Lemma for regular languages, and also the Pumping Lemma for context-free languages. Which of the following statements about L is FALSE?	4.0	1.00
		Al L is necessarily a regular language		
		A2 L is necessarily a context-free language, but not necessarily a regular language		
		A3 : L is necessarily a non-regular language		
		A4 : L is neither a regular nor context-free language		
Obiec	tive Question			
55	55	Consider the following regular expressions	4.0	1.00
		r1 = 1(0 + 1)* r2 = 1(1 + 0)+ r3 = 11*0		
		What is the relation between the languages generated by the regular expressions above ?		
		A1 $L(r1) \subseteq L(r2)$ and $L(r1) \subseteq L(r3)$		

		A2 $L(r1) \supseteq L(r2)$ and $L(r2) \supseteq L(r3)$:		
		$ \overset{A3}{:} L(r1) \supseteq L(r2) \text{ and } L(r2) \subseteq L(r3) $		
		$ \overset{A4}{:} L(r1) \supseteq L(r3) \text{ and } L(r2) \subseteq L(r1) $		
Objec	tive Question			
56	56	Consider alphabet $\Sigma = \{0, 1\}$, the null/empty string λ and the sets of strings X0, X1 and X2 generated by the corresponding non-terminals of a regular grammar. X0, X1 and X2 are related as follows;	4.0	1.00
		$X0 = 1 X1 X1 = 0 X1 + 1 X2 X2 = 0 X1 + {\lambda}$		
		Which one of the following choices precisely represents the strings in X0?		
		$ \stackrel{A1}{:} 10 (0^* + (10)^*)1 $		
		$ \stackrel{A2}{:} 10 (0^* + (10)^*)^* 1 $		
		$ \stackrel{A3}{:} 1(0^* + 10)^*1 $		
		A4 10 (0 + 10)*1 + 110 (0 + 10)*1 :		
Objec	tive Question			
57	57	In a compiler, keywords of a language are recognized during?	4.0	1.00
		Al Parsing of the program :		
		A2 The code generation		
		A3 The lexical analysis of the program		
		A4 Dataflow analysis		
Objec	tive Question			
58	58	Compiler translates the source code to	4.0	1.00
		Al Executable code		
		A2 BCD code		
		: BCD code		

	A4 Binary code :		
Objective Question			
9 59	Recursive descent parsing is an example of	4.0	1.00
	A1 : Top down parsing		
	A2 Bottom Up Parsing		
	A3 Predictive Parsing		
	A4 FIFO Parsing		
Objective Question			1.00
0 60	Running time of a program does not depend on	4.0	1.00
	Al Alfred and A		
	A1 Addressing mode		
	A2 : Order of Computation		
	A3 The usage of Machine idioms		
	A4 : Number of variables		
Dijective Question			
1 61	Which type of grammar is it? S->abS, S-> a	4.0	1.00
	S->abS, S-> a		
	A1		
	A1 Right Linear Grammar		
	A2 : Left linear Grammar		
	A3 Both Left and Right Linear Grammar		
	A4 Only Left but not Right Linear Grammar		
	:		
bjective Question			
2 62	The optimization which avoids test at every iteration is	4.0	1.00
	A1 Loop unrolling		
	A2 Loop jamming		
	: Loop Jamming		
Ш	11	II	11

		A3 Constant folding : A4 Loop Optimizing	
	tive Question		
63	63	A network with named nodes and labelled arcs that can be used to represent certain natural language grammars to facilitate parsing A1 Tree Network	4.0
		A2 Star Network	
		A3 Transition Network	

1.00

Objective Question 64 64 Zero sum game has to be a game. 4.0 1.00 A1 Single player - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -				
64	64	Zero sum game has to be a game.	4.0	1.00
		A1 Single player		
		A2 : Two player		
		Multiplayer		
		A4 : Three player		

Objective Question

A4 : Complete Network

Objec	live Question			
65	65	What is the field that investigates the mechanics of human intelligence?	4.0	1.00
		A1 History		
		A2 Cognitive science		
		A3 Psychology		
		A4 Sociology		
Object	tive Question			
66	66	Agents behavior can be best described by	4.0	1.00
		A1 Perception sequence		

		A2 Agent function		
		A3 Sensors and Actuators		
		A4 Environment in which agent is performing :		
Objec	tive Question			
67	67	is an algorithm, a loop that continually moves in the direction of increasing value – that is uphill.	4.0	1.00
		A1 Up-Hill Search		
		A2 Hill-Climbing		
		A3 Hill algorithm		
		A4 Reverse-Down-Hill search		
	tive Question			
68	68	What kind of environment is crossword puzzle?	4.0	1.00
		A1 Static		
		A2 Dynamic :		
		A3 Semi Dynamic		
		A4 Reat-Time		
Objec	tive Question			
69	69	What is lower bound on the sampling rate known as?	4.0	1.00
		A1 Syquist rate		
		A2 Nyquist rate		
		A3 Hartley rate :		
		A4 Sampling rate		
Objec	tive Question			
70	70	In 2D-translation, a point (x, y) can move to the new position (x', y') by using the equation	4.0	1.00
		A1 $x'=x+dx$ and $y'=y+dx$		

	11		11	11
		A2 = x'=x+dx and y'=y+dy		
		$: \frac{x = x + \alpha x \text{ and } y = y + \alpha y}{x = x + \alpha x \text{ and } y = y + \alpha y}$		
		$\begin{array}{c} A3 \\ \vdots \\ X'=x+dy \text{ and } Y'=y+dx \\ \end{array}$		
		A^4 X'=x-dx and y'=y-dy		
Dbjec	tive Question			
1	71	The distortion of information due to low-frequency sampling is known as	4.0	1.00
		A1 Sampling		
		A2 Aliasing		
		A3		
		A3 Inquiry function		
		A4 Anti-aliasing		
	tive Question			
2	72	Which image files are a lossy format?	4.0	1.00
		Al GIF		
		A2 MPEG		
		A3 JPEG		
		A4 PNG		
		: FNG		
N1 ·				
)бјес '3	tive Question	The intersection of three primary RGB color produces	4.0	1.00
		A1 White color		
		A2 Black color		
		A3 Magenta color :		
		A4 Blue color		
Objec	tive Question			

		A1 Phosphor		
		A2 Storage mesh		
		A3 : Glass		
		A4 Pixel		
Object 75	tive Question		4.0	1.00
15	15	Which color is produced with the blue and red dots	4.0	1.00
		A1 E Blue		
		A2 Yellow		
		A3 Magenta		
		A4 White		
Object	tive Question			
76	76	The ISO standard for computer Graphics is?	4.0	1.00
		A1 Computer graphics standard		
		A2 Graphics Standard System		
		A3 Graphics Kernel System		
		A4 : Graphics Processing Unit		
Object	tive Question			
77	77	The longest software life-cycle phase is	4.0	1.00
		A1 Implementation		
		A2 : Testing		
		A3 Design		
		A4 Maintenance		

bjective Question			
3 78	The model that is characterized by the assessment of risk management is	4.0	1.00
	A1 Waterfall model		
	A2 V-Shaped model		
	A3		
	A3 Spiral model		
	A4 Agile model		
bjective Question	1		
9 79	Implementing new or changed user requirements which concern functional enhancements to the software, falls under which	4.0	1.00
	category of software maintenance?		
	A1 Perfective		
	A2 Corrective		
	A3 Adaptive		
	A4 p		
	A4 Preventive		
bjective Question	A dummy program that uses the subordinate's module interface during the testing process is called as	4.0	1.00
	A duminy program that uses the subordinate's module interface during the testing process is called as	1.0	1.00
	A1 Proxy		
	A2 Driver		
	A3 Stub		
	A4		
	A4 : Test Case		
bjective Question		4.0	1.00
1 01	Which of the following is not a type of black box testing?	4.0	1.00
	A1 Equivalence partitioning		
	: Equivalence partitioning		
	A2 Boundary value analysis		
	:		
	A3 Decision coverage		

		A4 Cause–effect graph		
	tive Question			
82	82	Fish bone diagram is used for detecting	4.0	1.00
		Al Failure analysis		
		A2 : Cost analysis		
		A3 : Risks analysis		
		A4 Time analysis		
	tive Question			
83	83	Which of the following is not an objective for building an analysis model?	4.0	1.00
		A1 : Define set of software requirements		
		A2 Develop an abbreviated solution for the problem		
		A3 : Describe customer requirements		
		A4 Establish a basis for the development of software design		
Objec	tive Question			
84	84	What is configuration management?	4.0	1.00
		A1 Overall management of design of the system		
		A2 Management of the configurable components in a system		
		A3 : The identification of the configuration of a system at discrete points in time to control changes to the configuration		
		A4 In object-oriented programming, the management of objects that control the configuration of some other function(s) in : the system		
Objec	tive Question			
85	85	What will be output if you will compile and execute the following c code? void main() { int huge*p=(int huge*)0XC0563331; int huge*q=(int huge*)0xC2551341;	4.0	1.00
		*p=200; printf("%d",*q); }		
		A1 0		

: A2 Garbage value :		
A3 null		
A4 200		

Objective Question

86	86	Which of the following will produce a value of 22 if x=22.9?	4.0	1.00
		A1 ceil(x)		
		$\frac{A2}{2}$ round(x)		
		$\stackrel{A3}{:}$ int(x)		
		$\frac{A4}{A}$ abs(x)		

Objective Question

87	87	The statement int num[2][3]={ {1,2}, {3,4}, {5,6} };	4.0	1.00
		A1 assigns a value 2 to num[1][2]		
		A2 assigns a value 4 to num[1][2]		
		A3 gives an error message		
		A4 : assigns a value 3 to num[1][2]		

Objective Question

88	88	What is printed by the following program?	4.0	1.00
		void func (int *b) {		
		*b = 1;		
		}		
		int main () {		
		int *a;		
		int n;		
		a = &n		
		*a = 0;		
		func (a);		
		cout<< *a < <endl;< td=""><td></td><td></td></endl;<>		
		3		

1	1			
		A1 0 :		
		$\stackrel{A2}{:} 1$		
		A3 The address of b		
		44		
		A4 The address of a :		
Objec	tive Question			
89	89	To hide a data member from the program, you must declare the data member in the section of the class	4.0	1.00
		A1 concealed		
		A2 confidential		
		A3 hidden		
		A4 private		
Ођес 90	etive Question 90	Consider the following class:	4.0	1.00
		class FooBar {		
		public:		
		void f1 (string s);		
		void f2 (const string &s);		
		void f3 (string s) const;		
		private:		
		string str;		
		};		
		Which of the three member functions could legally alter member variable str?		
		A1 The function f1 only		
		A2 : The function f2 only		
		A3 The function f3 only		
		A4 Two of them		

Objective	Question
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l	tive Question 91	Consider the following Two weapons:	4.0	1.00
		Consider the following Java program :		
		<pre>public class Compute { public static void main (string args [])</pre>		
		int result, x; x=1;		
		result = 0;		
		while $(x \le 10) \{$ if $(x\%2 = 0)$ result $+ = x;$		
		++x;		
		<pre>System.out.println(result) ;</pre>		
		Which of the following will be the output of the above program?		
		A1 55		
		$\stackrel{A2}{:}_{30}$		
		A3 25		
		: 25		
		A4 35		
bject	tive Question			
2	92	Consider the following program:	4.0	1.00
		class prob1{ int puzzel(int n){		
		int result; if (n==1)		
		return 1;		
		result = puzzel(n-1) * n; return result;		
		}		
		} class prob2{		
		public static void main(String args[])		
		{ prob1 f = new prob1(); System.out.println(" puzzel of 6 is = " + f.puzzel(6));		
		<pre>System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } </pre>		
		} }		
		}		
		} } Which of the following will be the output of the above program?		
		} }		
		} Which of the following will be the output of the above program? A1 6		
		} } Which of the following will be the output of the above program?		
		} Which of the following will be the output of the above program? A1 6		
		<pre>} Which of the following will be the output of the above program? A1 6 A2 120</pre>		
		} Which of the following will be the output of the above program? A1 6		
		<pre>} Which of the following will be the output of the above program? Al 6 A2 120 A3 30 </pre>		
		<pre>} Which of the following will be the output of the above program? A1 6 A2 120</pre>		

93	93	Which of the following converts the human readable URL into IP address	4.0	1.00
		A1 IP Reader		
		A2 URL Filter		
		A3 DNS		
		A4 : Firewall		
Ohiaat	ive Question			
	94	Identify the odd item	4.0	1.00
		A1		
		Al Apache		
		A2 Tomcat		
		- Tomeat		
		A3 NGINX		
		A4 JavaScript		
	ive Question			
95	95	Which of the following is a model of learning based on rewards for desirable actions?	4.0	1.00
		A1 Reinforcement Learning		
		A2 : Deep Learning		
		A3 Shallow Learning		
		A4		
		A4 Linearing Learning		
Object	ive Question			
	96	The state in which model works well with the training set but fails to show good results with novel data is called	4.0	1.00
		Al Trade-off		
		A2 : Overfitting		
		A3 Underfitting		
		A4 : Non-fitting		

Dbjective Questi	n		
97	Identify the Odd item	4.0	1.00
	Al ZigBee		
	A2 CoAP		
	A3 DDS		
	A4 RMI		
Objective Question 98 98	Which of the following tool can be used for multi-cloud orchestration	4.0	1.00
	Al Cloudify :		
	A2 : Apache		
	A3 Android		
	A4 MCloud		
bjective Questi 9 99		4.0	1.00
, ,,	The cyber attack which causes opening of different web pages other than what the user has entered into the address bar	4.0	1.00
	Al Address Loss :		
	A2 DNS Poisoning		
	A3 Address Drag		
	A4 : Address Reload		
00 100	Multiply which of the following is used to instruct the direction in which the model has to progress?	4.0	1.00
	which of the following is used to instruct the direction in which the model has to progress?		1.50
	A1 Gradient Descent		
	A2 Global Descent		
	A3 Goal Descent		

A4 Gradient Draw	