Module Name : MTech Computer Science and Engineering-E Exam Date : 18-Sep-2020 Batch : 12:30-14:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks			
Objective 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	2	Which of the following are the applications of stack?	4.0	1.00			
		Al Function calls					
		A2 Large number Arithmetic					
		A3 Evaluation of arithmetic expressions :					
		A4 Procedures					
01	in On time						
3	3	If a node having two children is deleted from a binary tree, it is replaced by its	4.0	1.00			
		Al Preorder predecessor					
		A2 Inorder predecessor					
		A3 Inorder successor					
		A4 Preorder successor					
	in Oranti a						
4	ive Question		4.0	1.00			
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		
Dijective Question	1		
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		
Dijective Question	1		
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
	R		
	Al 2		
	A1 2 A2 3		
	$A_{1}^{A_{2}} C_{2}^{A_{2}} C_{3}$ $A_{2}^{A_{3}} C_{1}^{A_{3}} C_{1}^{A_{3}} C_{2}^{A_{3}} C_{2} C_{2}^{A_{3}} $		
	$ \begin{array}{c} $		
bjective Question	$ \begin{array}{c} $		
Dejective Question 7	f(a1, a2, a3) = (do, if, stop) represents an identifier set, how many possible binary search trees could be constructed ?	4.0	
Dbjective Question 7 7	$ \begin{array}{c} $	4.0	1.00

A3 7 : A4 :

Objec	tive 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) $		
		$ \stackrel{A3}{:} O(p+q) $		
		A4 O(log pq)		
Ohiaa	time On estima			

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

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

		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 Register indirect		
		A3 Base indexed		
		A4 : Displacement		
Objec	tive Question			
3	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		
Objec	tive Question			
.4	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, followed by a circular shift-right.	4.0	1.00
		A1 0101 1101 :		
		A2 0101 1100		
		A3 0101 1111		
		A4 :		
<u>.</u>	time Oraciti			

		A1 1024 bits		
		A2 2048 bits		
		A3 516 bits		
		A4 258 bits		
Ohian	ine Onesting			
16	16		4.0	1.00
		The 8-bit registers AR, BR, CR and DR initially have the following values:		
		AR = 1111 0010 $BR = 1111 1111CR = 1011 1001$ $DR = 1110 1010$		
		What will be the 8-bit values in each register after the execution of the microoperation		
		$AR \leftarrow AR + BR$.		
		A1 AR = 1111 0001, BR = 1111 1111 CR = 1011 1001, DR = 1110 0010		
		: $CR = 1011 \ 1001, DR = 1110 \ 0010$		
		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		
Object	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		
Ohia	tive Operation			
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 Desktop Publishing		
Objec	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
		A1 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		
Objec	tive Question			
22	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		
Obiec	tive Ouestion			
23	23	In the mergesort algorithm, what is the asymptotic running time of the step of merging sorted subarrays?	4.0	1.00
		$^{A1}_{:}$ O(log n)		
		A2 O(n)		
		$\stackrel{A3}{:} O(n \log n)$		
		A4 $^{O(n^2)}$		
Objec	tive Question			
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
		A1 Insertion sort		
		A2 Selection sort		
		A3 Quick sort (choosing the first element of the array as pivot)		
		A4 Merge sort		
Objec 25	tive Question	What is the efficient asymptotic running time to find the median of a sorted array of size N?	4.0	1.00
		what is the enterior asymptotic running time to find the median of a softed array of size iv.		
		$\stackrel{A1}{:}$ O(n)		
		$\frac{A2}{2} O(\log n)$		
		A3 O(1)		
		A4 O(n log n)		
Objec	tive Question			1.00
26	26	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		

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

5	· ·			
27	27	Multistage graphs are solved using technique	4.0	1.00
		A1 Greedy		
		A2 Dynamic programming		
		A3 Backtracking		
		A4 Branch and Bound		
Object	tive Question			
28	28	CNF Satisfiability problem is	4.0	1.00
		A1 NP		
		A2 NP Complete		
		A3 NP Hard		
		A4 p :		
Object	tive Question			

Objec	Jojective Question					
29	29	The worst case time complexity of the matrix chain multiplication algorithm is	4.0	1.00		
		A1 O(n)				
		$\frac{A2}{2}$ O(n ²)				
		$\frac{A3}{2}$ O(n ³)				
		$\frac{A4}{2}$ O(n ⁴)				
Object	ive 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		
Object	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		
Object	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		
Object	tive Question			
33	33	In memory-mapped scheme, the devices are viewed as	4.0	1.00
		A1 Distinct I/O Devices		
		A2 Memory Locations		
		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
		$\begin{bmatrix} A3 \\ \vdots \end{bmatrix}$		
Obiec	tive Ouestion			
35	35	When non-specific EOI command is issued to 8259A it will automatically	4.0	1.00
		A1 Set the ISR		
		A2 Description ICD		
		: Keset the ISK		
		A3 Set the INTR		
		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 p. All		
		Bus Arbiter		
		A3 Interrupt Controller		
		A4 DMA		
01	i'			
37	37	Given the basic ER and relational models, which of the following is INCORRECT?	4.0	1.00
		A1 An attribute of an entity can have more than one value		
		A2		
		: An attribute of an entity can be composite		
		A^3 In a row of a relational table, an attribute can have more than one value		

		$\frac{A4}{2}$ In a row of a relational table, an attribute can have exactly one value or a NULL value		
Object	tive Question			
38	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 	4.0	1.00
		A2 1 and 3 only		
		A3 1 and 2 only		
		A4 1, 2 and 3		
Object	tive Question			
39	39	Which level of locking provides the highest degree of concurrency in a relational database?	4.0	1.00
		A1 Page		
		A2 Table		
		A3 Row		
		A4 Page, table and row level locking allow the same degree of concurrency		
Object	tive Question			
40	40	A prime attribute of a relation schema R is an attribute that appears	4.0	1.00
		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		
Object	tive Question			
41	41	Consider the following two statements about database transaction schedules:	4.0	1.00
		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?		

		A1 Both 1 and 2		
		A2 1 only		
		$\stackrel{A3}{:}$ 2 only		
		A4 Neither 1 nor 2		
Object	tive Ouestion			
42	42	Consider the following relation <i>Cinema(theater, address, capacity)</i> <i>University (college, address, num_of_stu)</i> Which of the following options will be needed at the end of the SQL query	4.0	1.00
		SELECT U1.address FROM University U1		
		such that it always finds the addresses of colleges with maximum number of students?		
		A1 WHERE U1.num_of_stu >= All (select U2.num_of_stu from University U2)		
		A2 WHERE U1.num_of_stu >= Any (select U2.num_of_stu from University U2)		
		A3 WHERE U1.num_of_stu > All (select max(U2. num_of_stu) from University U2)		
		A4 WHERE U1.num_of_stu > Any (select max(U2. num_of_stu) from University U2)		
Object	tive Question			
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		
		A4 Ping Flooding		
Object	tive Question	1	I []	
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.	4.0	1.00
		A1 : Nonpersistent		
		A2 : 1-persistent		

		A3 P-persistent		
		A4 : n-persistent		
Object	tive Question			
45	45	In a block, the mask is 255.255.192.0; What is the prefix length?	4.0	1.00
		A1 : /20		
		A2 /24		
		A3 /23		
		A4 : /18		
Ohiert	tive Operation			
46	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		
Object	tive Question			
47	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 :		
Object	tive Question			
48	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		

Negative Question A 5 seconds Image: Comparison of the following message M = 11001001. The cyclic redundancy check (CBC) for this message using the polynomial 0.0 0.0 Objective Question A 0.0 A 0.0 0 A 0.0 A 0.0 0 0 A 100 0 0 0 0 A 100 0 0 0 0 A 100 0 0 0 0 A 100100 0 0 0 0 A 1010101 0 0 0 0 A 1010101 0 0 0 0 A 101101 0 0 0 0 A 1011010 0 0 0 0 B			A2 2 seconds		
Objective Question			A3 5 seconds		
Objective Question Image: Consider the following message M = 11001001. The cyclic redundancy sheck (CRC) for this message using the polynomial $\frac{4.0}{2}$, $\frac{1}{10}$, $\frac{1}{2}$, $\frac{1}{10}$, $\frac{1}{10}$, $\frac{1}{2}$, $\frac{1}{10}$			A4 8 seconds		
0 49 Consider the following message M = 11001001. The cyclic redundancy check (CRC) for this message using the polynomial x ³⁺¹ is 40 1.0 A1 011 A2 100 A3 110 A2 100 A3 110 A4 111 Objective Question The code 10011100101 received. Using hamming encoding algorithm, what is the original code sent? 40 1.00 A1 1011001 A2 10000101 1000101 1000101 A2 1000101 received. Using hamming encoding algorithm, what is the original code sent? 40 1.00 A1 101100 A2 1000101 received. Using hamming encoding algorithm, what is the original code sent? 40 1.00 A1 101010 A2 1000101 A1 101010 A2 1000101 A1 101010 A1 1000101 A2 1000101 A1 1001001 A1 1001001 100 A3 1011001 A1 1001001 A1 1001001 100 100 A4 100101 A1 1001001 A1 100100 100	Objec	tive Ouestion			
A1 011 A2 100 A3 110 A4 111 Description A4 111 A4 A4 111 A4	49	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
A ² 100 Image: Im			A1 011 :		
Objective Question Image: A 1 11 Amplitude of the final states of F to final sto final st			A2 100		
Objective Question 30 The code 10011100101 received. Using hamming encoding algorithm, what is the original code sent? 4.0 1.00 A1 101010 A2 1000101 A1 101010 A2 1000101 A1 101010 A1 101010 A2 1000101 A1 101010 A1 101010 A4 101101 A1 101101 A1 101010 A3 1011001 A1 101101 A1 100 Objective Question A1 1001101 A1 100 A1 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 A1 100 A1 Transition Graph of L A2 Regular expression of L A3 Complement of I. A2 Regular expression of L A3 Complement of I. A4 Finite Automata of L I I			A3 110		
Objective Question Info code 10011100101 received. Using hamming encoding algorithm, what is the original code sent? 4.0 1.00 30 30 A1 101010 A2 1000101 A1 101010 A1 101010 A2 1000101 A3 1011001 A4 1001101 A1 101010 A4 1001101 A4 1001101 Objective Question S1 S1 Converting each of the final states of F to non-final states of F to final states, FA thus obtained will reject every string belonging to L and will accept every string. 4.0 1.00 A1 Transition Graph of L A1 1 ransition Graph of L A2 Regular expression of L A3 Complement of L A3 Complement of L A3 Complement of L A4 Finite Automata of L A4 Finite Automata of L A1 Transition Graph of L A2 Regular expression of L A3 Complement of L A3 Complement of L A3 Complement of L A4 Finite Automata of L A1			A4 111 :		
S0 50 The code 10011100101 received. Using hamming encoding algorithm, what is the original code sent? 4.0 1.40 A1 1010110 A2 1000101 A1 A2 1000101 A3 1011001 A1 A3 1011001 A4 1001101 A1 Objective Question	Objec	tive Question			
A ¹ 1010110 A ² A ² 1000101 A ³ A ³ 1011001 A ³ A ⁴ 1001101 A ⁴ Objective Question Image: Converting each of the final states of F to non-final states of F to final states of	50	50	The code 10011100101 received. Using hamming encoding algorithm, what is the original code sent?	4.0	1.00
$\begin{bmatrix} A^{2} & 1000101 \\ A^{3} & 1011001 \\ A^{4} & 1001101 \\ A^{4} & 1001101 \\ A^{4} & 1001101 \\ B^{5} \end{bmatrix} \begin{bmatrix} 1 & Converting each of the final states of F to non-final states and old non-final states of F to final states, FA thus obtained will reject every string belonging to L and will accept every string, defined over \Sigma, not belonging to L is called A^{1} Transition Graph of L A^{2} Regular expression of L A^{3} Complement of L A^{3} Complement of L A^{4} Finite Automata of L A^{4} Finite Autom$			A1 1010110 :		
Objective Question 4.1001101 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, defined over Σ, not belonging to L and will accept every string, defined over Σ, not belonging to L. is called A1 Transition Graph of L A2 Regular expression of L A2 Regular expression of L A3 Complement of L A4 Finite Automata of L A4 Finite Automata of L			A2 1000101		
A ⁴ 1001101 A ⁴ 1001101 Image: Converting each of the final states of F to non-final states of F to 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 A ¹ Transition Graph of L A ² Regular expression of L A ² Regular expression of L A ³ Complement of L A ³ Complement of L A ⁴ Image: A ⁴			A3 1011001 :		
Objective Question 51 51 51 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 A1 Transition Graph of L . A2 Regular expression of L . A3 . A4 . Finite Automata of L			A4 1001101 :		
51 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 A1 Transition Graph of L 4.0 1.00 A2 Regular expression of L A3 Complement of L 4.0 1.00 A3 Complement of L A4 Finite Automata of L 1.00 1.00	Objec	tive Question			
A1 Transition Graph of L · · A2 Regular expression of L · · A3 Complement of L · ·	51	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
A2 Regular expression of L A3 Complement of L A4 Finite Automata of L			A1 Transition Graph of L :		
A3 Complement of L A4 : Finite Automata of L			A2 : Regular expression of L		
A4 : Finite Automata of L			A3 Complement of L		
			A4 Finite Automata of L		

Objec	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 Ouestion			
55	55	Consider the following regular expressions	4.0	1.00
		$ \begin{array}{l} r1 = 1(0+1)^{*} \\ r2 = 1(1+0) + \\ r3 = 11^{*}0 \end{array} $		
		What is the relation between the languages generated by the regular expressions above ?		
		A1		

		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) $		
		A4 $L(r1) \supseteq L(r3)$ and $L(r2) \subseteq L(r1)$		
Object	ive 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: X0 = 1 X1 X1 = 0 X1 + 1 X2 Y2 = 0 X1 + 1 (λ)	4.0	1.00
		Which one of the following choices precisely represents the strings in X0?		
		$ \stackrel{A1}{:} 10 (0^* + (10)^*)1 $		
		$ \stackrel{A2}{:} 10 (0^* + (10)^*)^* 1 $		
		$ \begin{array}{c} A3 \\ \vdots \\ 1(0^* + 10)^*1 \end{array} $		
		$\begin{array}{c} A4\\ \vdots\\ \end{array} 10 \ (0 + 10)^*1 + 110 \ (0 + 10)^*1 \end{array}$		
Object	tive Question			
57	57	In a compiler, keywords of a language are recognized during?	4.0	1.00
		A1 Parsing of the program		
		A2 The code generation		
		A3 The lexical analysis of the program		
		A4 Dataflow analysis		
Object	tive Question			
58	58	Compiler translates the source code to	4.0	1.00
		A1 Executable code		
		A2 BCD code		
		A3 Assembled Code		

		A4 Binary code		
Object	ive Question			
59	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 :		
Object	ive Question			
60	60	Running time of a program does not depend on	4.0	1.00
		A1 : Addressing mode		
		A2 : Order of Computation		
		A3 : The usage of Machine idioms		
		A4 Number of variables		
Object	ive Question			
61	61	Which type of grammar is it? S->abS, S-> a	4.0	1.00
		A1 Right Linear Grammar :		
		A2 : Left linear Grammar		
		A3 Both Left and Right Linear Grammar		
		A4 Only Left but not Right Linear Grammar		
Object	ive Question			
62	62	The optimization which avoids test at every iteration is	4.0	1.00
		A1 : Loop unrolling		
		A2 : Loop jamming		

		A3 Constant folding :	
		A4 : Loop Optimizing	
Objec	ctive Questior	1	
63	63	A network with named nodes and labelled arcs that can be used to represent certain natural language grammars to facilitate parsing	4.0
		A1 : Tree Network	
		A2 : Star Network	
		A3 Transition Network	

1.00

Objec	tive Question			
64	64	Zero sum game has to be a game.	4.0	1.00
		A1 Single player		
		A2 : Two player		
		A3 Multiplayer		
		A4 Three player		

Objective Question

A4 : Complete Network

Objective 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 Ouestion				
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					
Object	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					
Object	Objective Question						
68	68	What kind of environment is crossword puzzle?	4.0	1.00			
		A1 Static					
		A2 : Dynamic					
		A3 Semi Dynamic					
		A4 Reat-Time					
Object	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					
Object	tive Question		4.6	1.00			
/0	/0	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					

		$\stackrel{A2}{:} x'=x+dx \text{ and } y'=y+dy$				
		$ \overset{A3}{:} X'=x+dy \text{ and } Y'=y+dx $				
		$ \overset{A4}{:} X'=x-dx \text{ and } y'=y-dy $				
Object	tive Ouestion					
71	71	The distortion of information due to low-frequency sampling is known as	4.0	1.00		
		A1 Sampling				
		A2 : Aliasing				
		A3 : Inquiry function				
		A4 : Anti-aliasing				
Object	Objective Question					
72	72	Which image files are a lossy format?	4.0	1.00		
		A1 GIF				
		A2 MPEG				
		A3 JPEG				
		A4 PNG				
Object	tive Ouestion					
73	73	The intersection of three primary RGB color produces	4.0	1.00		
		A1 White color				
		A2 Black color				
		A3 : Magenta color				
		A4 : Blue color				
Object	tive Question					
74	74	The electron beam in DUST is designed to draw directly to	4.0	1.00		

		A1 Phosphor		
		A2 Storage mesh		
		A3 Glass		
		A4 Pixel		
Object	tive Question			
75	75	Which color is produced with the blue and red dots	4.0	1.00
		A1 Blue		
		A2 Yellow		
		A3 Magenta		
		A4 White		
	i. O sti			
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		

Objec	tive Question			
78	78	The model that is characterized by the assessment of risk management is	4.0	1.00
		Al Waterfall model		
		A2 V-Shaped model		
		A3 Spiral model		
		A4 : Agile model		
Objec	tive Question			
79	79	Implementing new or changed user requirements which concern functional enhancements to the software, falls under which category of software maintenance?	4.0	1.00
		Al Perfective		
		A2 Corrective		
		A3 Adaptive		
		A4 Preventive		
Ohia	time Ornertier			
80	80	A dummy program that uses the subordinate's module interface during the testing process is called as	4.0	1.00
		Al Proxy		
		A2 Driver		
		A3 Stub		
		A4 : Test Case		
Objec	tive Question			
30jec 31	81	Which of the following is not a type of black box testing?	4.0	1.00
		Al Equivalence partitioning		
		A2 Boundary value analysis		
		A3 Decision coverage		

		A4 Cause–effect graph		
Objec	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		
Objec	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
		Al 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 Ouestion			
85	85	What will be output if you will compile and execute the following c code?	4.0	1.00
		<pre>void main() { int huge*p=(int huge*)0XC0563331; int huge*q=(int huge*)0xC2551341; *p=200; printf("%d",*q); }</pre>		
		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
		$\stackrel{A1}{:}$ ceil(x)		
		A2 round(x)		
		$\frac{A3}{a}$ int(x)		
		A4 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;<>		
		F		

		A1 0 :		
		A2 1 :		
		A3 : The address of b		
		A4 The address of a :		
Object	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		
Object	tive Question			
90	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		

$\frac{1}{2} \begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	91	91	Consider the following Java program :	4.0	1.00
$\frac{1}{1} = \frac{1}{1} = \frac{1}$			multip stage Commute (
$\frac{\left \begin{array}{c} \left \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $			public static void main (string args [])		
$x = 1; \\ rend := 0; \\ while (x < = 10) \{ (x < = 10; (x < 10; (x < = 10; (x < 10; (x < = 10; (x < = 10; (x < = 10; (x < = 10; (x < 10; (x < 10; (x < 10; (x < 10; $			{ int result, x :		
$\frac{1}{16} = \frac{1}{16} $			$\mathbf{x} = 1;$		
$\frac{1}{12} \left\{ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $			result = 0; while $(x \le 10)$ {		
$\frac{\left \begin{array}{c}1&1\\1&1\\2\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\3\\$			if $(x\%2 = 0)$ result $+ = x$;		
Which of the following will be the output of the above program? A1 55 A2 30 A3 25 A4 35 A4 35 Which of the following program: dass prob1{ int read, if (n=1); return ruzz(n1)*n; return			}		
$\frac{1}{1}$ Which of the following will be the output of the above program? $\frac{A^{1}}{2} \frac{55}{30}$ $\frac{A^{2}}{30} \frac{325}{4} \frac{4}{35} \frac{35}{35}$ Which of the following program: $\frac{A^{3}}{25} \frac{4}{2} \frac{35}{35} \frac{4}{2} \frac{1}{35} \frac{1}{100} \frac{100}{100} \frac{100}{100$			System.out.println(result);		
Directive Question 4.0 1.00 Directive Question 4.0 1.00 Directive Question 4.0 1.00 Via 2 V Consider the following program:					
Which of the following will be the output of the above program? $A^1 55$ $A^2 30$ $A^3 25$ $A^4 35$ Dejective Question I^2 V^2 <td></td> <td></td> <td></td> <td></td> <td></td>					
$ \begin{array}{ c c c c } & \begin{array}{ c } & \end{array} \end{array} \end{array} \end{array} \end{array} $			Which of the following will be the output of the above program?		
$\frac{1}{100} = \frac{1}{100} + \frac{1}$					
$ \begin{array}{ c c c c } \begin{array}{ c c c } \begin{array}{ c } \begin{array}{ c c } \begin{array}{ c c } \begin{array}{ c c } \begin{array}{ c } \end{array}\end{array}\end{array}\end{array} \end{array} $			A1 55		
$ \begin{array}{ c c c } \begin{array}{ c c } \begin{array}{ c c } \begin{array}{ c } \end{array}} \begin{array}{ c } \end{array} \\ \begin{array}{ c \\ \end{array} \\ \end{array} \\ \begin{array}{ c \\ $					
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			A2 30		
$ \begin{array}{ c c c c } \hline A_{3} & 25 \\ A_{35} \\ \hline B_{10} \\ \hline B_$:		
$\begin{array}{ c c c } & \begin{array}{ c } & \end{array}{ c } & \end{array}{ c } \\ & \begin{array}{ c } & \begin{array}{ c } & \begin{array}{ c } & \end{array}{ c } & \end{array}{ c } & \end{array}{ c } \\ & \begin{array}{ c } & \begin{array}{ c } & \begin{array}{ c } & \end{array}{ c } \\ \hline & \begin{array}{ c } & \begin{array}{ c } & \begin{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \hspace{ c } & \end{array}{ c } & \rule{ c } &$			۸3		
$\begin{array}{ c c } & A_{35} \\ \hline Dejective Question \\ \hline Consider the following program: \\ \hline class prob [(\\ int result; \\ if (n=1); \\ return 1; \\ result = puzzel(n=1) * n; \\ return result; \\ \ explicit anio(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline class prob 2 (\\ public static void main(String args[]) \\ \hline c$			$\frac{10}{25}$		
Dejective Question 2^2 9^2 Consider the following program: class prob1(int puzzel(nt n){ int result; if (n=1) return 1; result; glass prob2(public static void main(String args[]) { { Particle of 6 is = " + f puzzel(6)): } { A1 6 $^{A1}_{:2}$ 120 $^{A1}_{:2}$ 120 $^{A1}_{:2}$ $^{A1}_{:2}$ 120 $^{A1}_{:2}$ $^{A1}_{:2}$ $^{A1}_{:2}$ $^{A1}_{:2}$ $^{A1}_{:2}$ $^{A1}_{:2}$ <td></td> <td></td> <td></td> <td></td> <td></td>					
Delycetive Question 4.0 1.00 22 2^2 2^2 Consider the following program: 4.0 1.00^{-1} 23 2^2 2^2 Consider the following program: 4.0^{-1} 1.00^{-1} 24 3^2 Consider the following program: 1.00^{-1} 1.00^{-1} 1.00^{-1} 25 3^2 Consider the following program: 1.00^{-1} 1.00^{-1} 1.00^{-1} 26 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 27 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 28 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 29 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 29 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 29 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 29 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1} 1.00^{-1}			^{A4} 35		
Display=trian 4.0 1.00 22 92 Consider the following program: 4.0 1.00 $(2as prob) \{$ Int puzzel(in n) { Int puzzel(in n) { Int result; Int puzzel(in n) { Int puzzel in n { I					
$\begin{array}{c c c c c c c c } & 92 \\ \hline & \mathbf{Consider the following program:} \\ & class prob1{ int puzze[(nt n){ int result; if (n=1) return 1; result = puzze[(n-1) * n; return result;] } \\ & class prob2{ public static void main(String args[]) { { for 1 f = new prob1(); System out println(" puzzel(6)); } \\ & for 1 f = new prob1(); \\ & System out println(" puzzel(6)); \\ & for 1 f = new prob1(0; f$	Object	ive Question			
<pre>class prob1{ int puzzel(int n){ int result; if (n=-1) return 1; return result; } class prob2{ public static void main(String args[)) { rob1 f = new prob10; System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } } Which of the following will be the output of the above program? A1 6 A2 120 A3 30 </pre>	92	92	Consider the following program:	4.0	1.00
class prob1{ int puzzel(int n){ int result; if (n=1) return 1; return result; } class prob2{ public static void main(String args[]) { f prob1 f = new prob1(); System out println(" puzzel of 6 is = " + f puzzel(6)); } Which of the following will be the output of the above program? A1 6 A2 120 A3 30					
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)); } Which of the following will be the output of the above program? A1 6 $\frac{A2}{120}$ $\frac{A3}{30}$			class prob1{ int puzzel(int n){		
retum 1; retum retum retum retum result; } class prob2{ public static void main(String args[]) { prob1 f = new prob1(); System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } Which of the following will be the output of the above program? A1 6 $\frac{A2}{2}$ 120 $\frac{A3}{30}$			int result; if (n==1)		
result = puzzel(n-1) * n; retum result; } class prob2{ public static void main(String args[]) { prob1 f = new prob1(); System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } Which of the following will be the output of the above program? A1 6 : $\frac{A2}{120}$ $\frac{A3}{30}$			return 1;		
<pre>} } class prob2{ public static void main(String args[]) { prob1 f = new prob1(); System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } Which of the following will be the output of the above program? A1 6 A2 120 A3 30 </pre>			result = puzzel(n-1) * n; return result;		
<pre> / dass prob2{ public static void main(String args[]) { prob1 f = new prob1(); System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } Which of the following will be the output of the above program? A1 6 A2 120 A3 30 A3 30 </pre>			}		
<pre>public static void main(String args[]) { probl f = new probl(); System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } } Which of the following will be the output of the above program? Al 6 : A2 120 : A3 30 : </pre>			class prob2{		
<pre>probl f = new probl(); System.out.println(" puzzel of 6 is = " + f.puzzel(6)); } Which of the following will be the output of the above program? Al 6 Al 6 A2 120 A3 30 </pre>			public static void main(String args[]) {		
<pre>System.out.pinium(puzzei of o is = ' + 1.puzzei(6)); } Which of the following will be the output of the above program? A1 6 A2 120 A3 30</pre>			prob1 $f = new prob1();$		
Which of the following will be the output of the above program? A1 6 A2 120 A3 30			}		
Which of the following will be the output of the above program? A1 6 A2 120 A3 30			}		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			Which of the following will be the output of the above program?		
$ \begin{array}{c} \text{A1} \\ \text{c} \\ \text{A2} \\ \text{c} \\ \text{c} \\ \text{A3} \\ \text{c} $					
$ \begin{array}{c} ^{A2} \\ ^{A3} $			Al 6 :		
$\begin{array}{c} A2 \\ \vdots \\ A3 \\ \vdots \\ 30 \end{array}$					
$\begin{array}{c} \cdot \\ A_{3} \\ \cdot \end{array} _{30}$			A2 120		
A3 30					
			A3		
			$\frac{AS}{20}$		
			A4 720		
Dejective Question	Object	ive Question			

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		
Object	ive Question			
94	94	Identify the odd item	4.0	1.00
		Al Apache		
		A2 : Tomcat		
		A3 NGINX		
		A4 ; JavaScript		
Object	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 : Linearing Learning		
Object	ive Question			
96	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
		A1 : Trade-off		
		A2 : Overfitting		
		A3 : Underfitting		
		A4 : Non-fitting		

Objec	tive Question			
97	97	Identify the Odd item	4.0	1.00
		A1 ZigBee		
		A2 CoAP		
		A3 DDS		
		A4 RMI		
Ohiec	tive 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		
Objec 99	etive Question 99	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		
Objec	tive Question			
100	100	Which of the following is used to instruct the direction in which the model has to progress?	4.0	1.00
		A1 Gradient Descent		
		A2 Global Descent		
		A3 Goal Descent		

	A4 Gradient Draw		
	:		