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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

MCA

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Objective Type)

Subject Code: AMCA0203

Subject: Data Structures

Max. Mks. : 70

Time : 70 Minutes

General Instructions:

All questions are compulsory.

Question No- 1 to 15 are objective type question carrying 2 marks each.

Question No- 16to 35 are also objective type/Glossary based question carrying 2 marks each.

Q.No.	Question Content	Question Image	Category	Sub Category	Marks	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
1	Find output main() {printf("HELLO WORLD");}		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	HELLO WORLD	error	Hello World!!!	HELLO WORLD	hello wold
2	Which of the following special symbol allowed in a variable name?		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	_(Underscore)	* (asterisk)	(pipeline)	Hypen	_(Underscore)
3	If start==NULL ? IT SIGNIFIES		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	List does not exist	LIST IS AT THE END	start is not assigned the value of first node	List does not exist	None
4	A doubly linked list has ..... pointers with each node		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	2	1	2	3	0
5	ptr=(struct emp*)malloc(sizeof(struct emp))		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	allocates memory to node	allocates memory to node	checks for memory	error	NONE
6	In which data structure element is inserted at one end called Rear and deleted at other end called Front.		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	QUEUE	STACK	QUEUE	BOTH	NONE
7	Stack can be implemented using _____ and _____ ?		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	Array and Linked list	Array and Binary Tree	Linked List and Binary Tree	Array and Linked list	None
8	A queue follows _____		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	FIFO	FIFO	LIFO	ORDERED LIST	NONE
9	What is the maximum number of children that a binary tree node can have?		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	2	0	1	2	3
10	A binary tree is a rooted tree but not an ordered tree.		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	TRUE	TRUE	FALSE		
11	General ordered tree can be encoded into binary trees.		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	TRUE	TRUE	FALSE		
12	In a simple graph, the number of edges is equal to twice the sum of the degreesof the vertices.		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	TRUE	TRUE	FALSE		
13	A graph with all vertices having equal degree is known as a _____		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	Regular Graph	Multi Graph	Regular Graph	Simple Graph	Complete Graph
14	Graphs are represented using		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	Adjacency linked list	Adjacency tree	Adjacency linked list	Adjacency graph	Adjacency queue
15	C is middle level Language		Single Choice Questions	Single Choice Questions	2	Single Choice	Smart	TRUE	TRUE	FALSE		
16	Traverse, Searching, Insertion and Deletion are _____ of Data Structure		Glossary I	Glossary I	2	Single Choice	Brilliant	Operations	Operations	Algorithm	pointer	Array
17	_____is static in nature		Glossary I	Glossary I	2	Single Choice	Brilliant	Array	Operations	Algorithm	pointer	Array

Q.No.	Question Content	Question Image	Category	Sub Category	Marks	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
18	An _____ is finite set of instructions or logic written in order to do a task		Glossary I	Glossary I	2	Single Choice	Brilliant	Algorithm	Operations	Algorithm	Pointer	Array
19	The _____ stores the address of memory		Glossary I	Glossary I	2	Single Choice	Brilliant	Pointer	Operations	Algorithm	Array	Pointer
20	_____ is a sequence of links which contain items		Glossary II	Glossary II	2	Single Choice	Smart	Linked list	Circular	Linked list	Double Linked List	Data and Link
21	Single linked list node contains_____		Glossary II	Glossary II	2	Single Choice	Smart	Data and Link	Circular	Linked List	Double Linked List	Data and Link
22	_____ linked list last item contains link of first element as next		Glossary II	Glossary II	2	Single Choice	Smart	Circular	Linked List	Double Linked List	Circular	Data and Link
23	_____ linked list allows to move in both directions		Glossary II	Glossary II	2	Single Choice	Brilliant	Double Linked List	Circular	Linked List	Double Linked List	Data and Link
24	Insertion in Stack is called as _____ operation		Glossary III	Glossary III	2	Single Choice	Smart	Push	Push	Pop	Traverse	Peek
25	To display the elements of Stack we use _____function		Glossary III	Glossary III	2	Single Choice	Brilliant	Traverse	Push	Pop	Traverse	Peek
26	_____ does not delete the element but returns the top element		Glossary III	Glossary III	2	Single Choice	Brilliant	Peek	Push	Pop	Traverse	Peek
27	Deletion of element of Stack is called _____operation		Glossary III	Glossary III	2	Single Choice	Smart	Pop	Push	Pop	Traverse	Peek
28	A tree is a _____data Structure		Glossary IV	Glossary IV	2	Single Choice	Smart	Non-Linear	N-1	Node	Non-Linear	Root
29	In tree data structure every individual element is called as _____		Glossary IV	Glossary IV	2	Single Choice	Brilliant	Node	N-1	Node	Non-Linear	Root
30	In tree if there are N number of nodes so the maximum links will be _____		Glossary IV	Glossary IV	2	Single Choice	Brilliant	N-1	N-1	Node	Non-Linear	Root
31	In tree first node is called as _____		Glossary IV	Glossary IV	2	Single Choice	Smart	Root	N-1	Node	Non-Linear	Root
32	Number of edges incident on a node is called _____		Glossary V	Glossary V	2	Single Choice	Smart	Degree	Indegree	Outdegree	Path	Degree
33	Number of edges entering the node is called _____		Glossary V	Glossary V	2	Single Choice	Smart	Indegree	Indegree	Outdegree	Path	Degree
34	Number of edges Leaving the node is called _____		Glossary V	Glossary V	2	Single Choice	Smart	Outdegree	Indegree	Outdegree	Path	Degree
35	A_____is simple if each vertex is distinct		Glossary V	Glossary V	2	Single Choice	Smart	Path	Indegree	Outdegree	Path	Degree