Question Bank for Data Structures						
Class:- FYCS				**Semester:-II**		
Q. No.	**Question**	**Option 1**	**Option 2**	**Option 3**	**Option 4**	**Answer**
Q.1.	Which data structure allows deleting data elements from front and inserting at rear?	stacks	queues	dequeues	binary search tree	2
Q.2.	Which data structure allows deletions at both ends of the list but insetion at only one end?	input restricted dequeue	output restricted dequeue	priority queues	circular queues	1
Q.3.	Which of the following data structure is non - linear type?	strings	list	stacks	tree	4
Q.4.	Which of the following data structure is linear type?	strings	list	queues	all of the above	4
Q.5.	To represent hierarchial relationship between elements, which data structure is suitable?	dequeue	priority queue	tree	stack	3
Q.6.	Which of these best describes an array?	A data structure that shows a hierarchical behaviour	Container of objects of similar types	Arrays are immutable once initialised	Array is not a data structure	2
Q.7.	What are the advantages of arrays?	Objects of mixed data types can be stored	Elements in an array cannot be sorted	Index of first element of an array is 1	Easier to store elements of same data type	4

Q.8.	What are the disadvantages of arrays?	Data structure like queue or stack cannot be implemented	There are chances of wastage of memory space if elements inserted in an array are lesser than the allocated size	Index value of an array can be negative	Elements are sequentially accessed	2
Q.9.	In general, the index of the first element in an array is _____	0	-1	2	1	1
Q.10.	Elements in an array are accessed	randomly	sequentially	exponentially	logarithmically	1
Q.11.	Process of inserting an element in stack is called _____	Create	Push	Evaluation	Pop	2
Q.12.	Process of removing an element from stack is called _____	Create	Push	Evaluation	Pop	4
Q.13.	Entries in a stack are “ordered”. What is the meaning of this statement?	A collection of stacks is sortable	Stack entries may be compared with the ‘<‘ operation	The entries are stored in a linked list	There is a Sequential entry that is one by one	4
Q.14.	In a stack, if a user tries to remove an element from empty stack it is called _____	Underflow	Empty collection	Overflow	Garbage Collection	1
Q.15.	Pushing an element into stack already having five elements and stack size of 5, then stack becomes	Underflow	Empty collection	Overflow	Garbage Collection	3

Q.16.	Which of the following applications may use a stack?	A parentheses balancing program	Tracking of local variables at run time	Compiler Syntax Analyzer	Data Transfer between two asynchronous process	4
Q.17.	The data structure required to check whether an expression contains balanced parenthesis is?	Stack	Queue	Array	Tree	1
Q.18.	Which of the following is called FIFO System?	Tree	Stack	Queue	Graph	3
Q.19.	Which of the following operations accesses each record exactly once so that certain items may be processed?	Inserting	Traversing	Searching	Deleting	2
Q.20.	Which of the following is not a primitive data structure?	Boolean	Integer	Arrays	Character	3
Q.21.	Which is the logical or mathematical model of a particular organization of a data?	Structures	Functions	Variables	Data Structures	4
Q.22.	Which of the following sorting algorithm is of divide and conquer type?	Bubble sort	Quick sort	Merge sort	Insertion sort	2
Q.23.	Two main measures for efficiency of an algorithm are	Time and space	Processor and memory	Complexity and capacity	data and space	1
Q.24.	Which of the following case does not exist in the complexity theory?	Best case	Average case	Worst case	Null case	4
Q.25.	The complexity of Bubble sort algorithm is	O(n)	O(log n)	O(n^2)	O(n log n)	3
Q.26.	A linear collection of data elements where the linear node is given by means of pointer is called?	Linked list	Node list	Primitive list	Unordered list	1
Q.27.	Queues serve major role in _____	Simulation of recursion	Simulation of limited resource allocation	Simulation of arbitrary linked list	Simulation of heap sort	2
Q.28.	Circular Queue is also known as _____	Ring Buffer	Square Buffer	Rectangle Buffer	Curve Buffer	1

Q.29.	A data structure in which elements can be inserted or deleted at/from both the ends but not in the middle is?	Queue	Circular queue	Dequeue	Priority queue	3
Q.30.	A binary tree whose every node has either zero or two children is called_____	complete binary tree	binary search tree	extended binary tree	null binary tree	3