

1. Which is the basic technique for understanding programming logic in simple texture formate?
 (A) Algorithm (B) Flow-chart (C) A & B (D) Dry-Run
2. To accomplish a logic of the program, how many algorithms can be implemented?
 (A) Only one (B) Two (C) Any No of (D) Four
3. In computer science, _____ is the determination of the number of resources necessary to execute them.
 (A) Analysis (B) Algorithms (C) Coding (D) Analysis of Algorithm
4. To estimate complexity of function and analysis which of following can be used?
 (A) Big Oh (B) Big Omega (C) Big Theta (D) All of Given Notation
5. _____ efficiency estimates depend on what we define to be a step.
 (A) Program (B) Time (C) Date (D) Money
6. Which of the following is a cost model for algorithm analysis?
 (A) Uniform Cost Model (B) Logarithmic Cost Model (C) Time Cost Model (D) A & B Model
7. _____ is platform independent.
 (A) Algorithm (B) Program (C) Cost (D) None of given
8. Time complexity depends on _____ of program's input.
 (A) Size (B) Height (C) Width (D) Type
9. Searching method has _____ running time.
 (A) $O(n^3)$ (B) $O(n^2)$ (C) $O(n)$ (D) $(On)^3$
10. In O notation, the expression O is called _____ Sybmole.
 (A) Linkon's (B) LinkedIn's (C) Landau's (D) London's
11. The notation $f(n) = O(g(n))$ says that function f is asymptotically bounded from _____ by the function g.
 (A) Top (B) Bottom (C) Above (D) Below

:: M.C.Q. ::

1. Data structure should satisfactorily represent the relationship between _____.
(A) Programs (B) Loops (C) Data Elements (D) All of Given
2. Which of the following data structure is not a linear data structure?
(A) Tree (B) Arrays (C) Linked Lists (D) Stack
3. Which of the following data structure is a linear data structure?
(A) Linked List (B) Queue (C) Stack (D) All of Given
4. The range of integer data type is _____.
(A) -128 to 127 (B) -37768 to 32768 (C) -34 e -38 to 34 e +38 (D) -1.7 e -108 to 1.7 e +108
5. On a 16 bit machine, Long Double occupies _____ bits to declare variable?
(A) 16 (B) 32 (C) 64 (D) 80
6. Which of following is not a data type modifier?
(A) Long (B) Short (C) Double (D) Signed
7. A type qualifier is used to refine declaration of _____.
(A) Variable (B) Functions (C) Parameters (D) All of Given
8. Array is a _____ type of data structure.
(A) Linear (B) Homogeneous (C) Non-Homogeneous (D) A & B
9. How many ways available to initialize an array?
(A) 2 (B) 3 (C) 4 (D).5
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10. Which of following symbol is known as Address / Reference Sybmol?
(A) # (B) % (C) * (D) &
11. A pointer can store the address of _____.
(A) A Pointer (B) An Array (C) A Structure (D) All of Given
12. An array is actually a pointer of _____ element of the Array.
(A) 1st (B) 2nd (C) 0th (D) Last
13. The variables are categorized depending on the place of declaration as _____.
(A) Internal (B) External (C) A & B (D) None
14. _____ determine the lifetime of the storage associated with the variable.
(A) Storage Class (B) Pointer (C) Array (D) Structure
15. The default initial value of External Storage Class is _____.
(A) Garbage (B) 1 (C) 2 (D) 0

16. The default initial value of Static Storage Class is _____.
(A) Garbage (B) 1 (C) 2 (D) 0
17. C programming language manages memory _____.
(A) Statically (B) Dynamically (C) Automatically (D) All of Given
18. _____ function allocates memory space for specified size.
(A) Alloc() (B) Malloc() (C) Calloc() (D) Realloc()
19. Which of the following function belongs to stdlib.h header file?
(A) Malloc() (B) Alloc() (C) Free() (D) Calloc()
20. Array is a collection of more than one variable/data field of Same data type.
(A) Same (B) Different (C) Integer (D) Float

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1. _____ is the process of putting a list or a group of items in a specific order.
(A) Sorting (B) Searching (C) A & B (D) None

2. _____ is not a type of sorting.
(A) Radix (B) Quick (C) Insertion (D) Cooperating

3. _____ sorting technique works by comparing each element of the list with the element next to it.
(A) Bubble (B) Radix (C) Quick (D) All of Given

4. In _____ sorting technique the largest of element is moved to the end of list by each pass.
(A) Bubble (B) Radix (C) Quick (D) Insertion

5. _____ sorting technique uses search & swap technique.
(A) Bubble (B) Quick (C) Selection (D) Insertion

6. _____ sorting technique has $O(n^2)$ complexity.
(A) Quick (B) Selection (C) Bubble (D) Radix

7. Which of the following sorting technique is the fastest in sorting large number of elements?
(A) Quick (B) Selection (C) Bubble (D) Merge

8. Which of the following sorting uses divide and conquer technique?
(A) Bubble (B) Merge (C) Quick (D) Radix

9. _____ sorting technique is also known as Bin Sort.
(A) Bubble (B) Merge (C) Selection (D) Bucket

10. Which of the following technique uses in-place comparison method?
(A) Bucket Sort (B) Shell Sort (C) Merge Sort (D) Insertion Sort

11. Which are most popular searching techniques?
(A) Linear Search (B) Binary Search (C) Bin Search (D) A & B

12. Which of the following searching technique is known as Sequential Searching?
(A) Linear Search (B) Binary Search (C) Bin Search (D) A & B

13. Which searching technique is more efficient in searching numbers from an unsorted array?
(A) Linear Search (B) Binary Search (C) Bin Search (D) Index Search

14. Which kind of sorting algorithm maintain relative order of records with equal keys?
(A) All (B) None (C) Stable (D) Unstable

15. Which kind of sorting algorithm may change the relative order of records with equal keys?
(A) All (B) None (C) Stable (D) Unstable

16. In which sorting algorithm, for an array of n elements, the array is sorted after $n-1$ phases?
(A) Bubble Sort (B) Insertion Sort (C) Selection Sort (D) Radix Sort

17. Which sorting algorithm puts the smallest element at first place and the another by each step.
(A) Bubble Sort (B) Insertion sort (C) Selection Sort (D) Radix Sort

:: M.C.Q. ::

1. Information is _____ type of representation.
 (A) Symbolic (B) Literature (C) Arithmetic (D) Psychological
2. _____ are method of representing logical relationship between individual data elements related to the solution of given problem.
 (A) Algorithms (B) DFDs (C) Sorting (D) Data Structure
3. _____ should be declared with char data type.
 (A) Data Members (B) Electrification (C) Pointers (D) All of Given
4. Efficient data structures are a key to _____ efficient algorithm.
 (A) Indexing (B) Creating (C) Designing (D) Maintaining
5. A data structure is a structured set of _____ associated with one another in different ways.
 (A) Variables (B) Functions (C) Structures (D) Unions
6. The data structure should be _____ so that the programmer can easily process the data.
 (A) Efficient (B) Easy (C) Simple (D) Perfect
7. There are basic _____ types of linear data structure.
 (A) 3 (B) 5 (C) 8 (D) 4
8. Data is stored in stack where adding of data is permitted only from _____ side.
 (A) Top (B) Bottom (C) Left (D) Right
9. In stack, removing data is possible from _____ side.
 (A) Top (B) Bottom (C) Left (D) Right
10. Stack uses _____ Approach.
 (A) FILO (B) FIFO (C) LIFO (D) LILO

11. Queue uses FIFO Approach.
(A) FCFS (B) LIFO (C) LILO (D) FCLS
12. In queue addition is done from the _____ end.
(A) Last (B) Front (C) Back (D) Top
13. In queue deletion is done from _____ end.
(A) Last (B) Front (C) Back (D) Top
14. _____ is a data structure consisting of a group of nodes which together represents a sequence.
(A) Stack (B) Queue (C) Linked-List (D) All of Given
15. _____ follows hierarchical order.
(A) Stack (B) Queue (C) Linked-List (D) Tree

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1. Stack is _____ kind of data structure.
(A) Static (B) Dynamic (C) Linear (D) Non-Linear
2. Stack follows _____ kind of process for inserting and deleting elements.
(A) LIFO (B) FIFO (C) FILO (D) LILO
3. Writing values to the stack is known as _____ operation.
(A) Push (B) Pop (C) Peep (D) None
4. Removing values from the stack is known as _____ operation.
(A) Push (B) POP (C) Peep (D) None
5. In stack elements are entered from _____ side.
(A) Left (B) Right (C) Top (D) Bottom
6. In stack elements are entered from _____ side.
(A) Left (B) Right (C) Top (D) Bottom
7. Overflow condition happens in stack when we try to insert element into _____ stack.
(A) Static (B) Dynamic (C) Full (D) Empty

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8. Underflow condition happens in stack when we try to remove element from _____ stack.
(A) Static (B) Dynamic (C) Full (D) Empty
9. If TOP == -1 then the stack is _____.
(A) Static (B) Dynamic (C) Full (D) Empty
10. Polished Notation is used in stack-based programming language like _____.
(A) PostScript (B) Forth (C) Cobol (D) A & B
11. Queue uses _____ type of operation for inserting and deleting elements.
(A) LIFO (B) FIFO (C) FILO (D) LILO
12. In queue elements are inserted from _____ end.
(A) Top (B) Bottom (C) Front (D) Back
13. In queue elements are deleted from _____ end.
(A) Top (B) Bottom (C) Front (D) Back
14. _____ is not a type of queue.
(A) Circular Queue (B) Simple Queue (C) Double queue (D) DQueue
15. In _____ type of queue elements can be inserted and deleted at opposite ends.
(A) Circular Queue (B) Simple Queue (C) Double Ended Queue (D) All of given
16. Priority queue elements are inserted and deleted on _____ bases.
(A) Quick (B) Reference (C) Urgency (D) Priority
17. To improve performance priority queue uses a _____ as backbone.
(A) Heap (B) Stack (C) Bucket (D) None
18. A priority queue is an abstract type like _____.
(A) List (B) Map (C) Tree (D) All
19. How many types of double ended queue are available
(A) 1 (B) 2 (C) 3 (D) 4
20. In circular queue _____ shows empty queue.
(A) Front=Top (B) Front=Rear (C) Rear=TOP (D) Rear=Bottom

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17. _____ linked list allows us to traverse in any direction starting at any point.
(A) Single (B) Double (C) Circular (D) All
18. For finding length of linked list _____ logic is used.
(A) Count != Null (B) Count == Null (C) Top == Bottom (D) Front == Rear
19. To access nodes of linked list from start to end is known as _____.
(A) Searching (B) Traversing (C) Traveling (D) Peep
20. Which of following is a way to reverse a linked list?
(A) Iterative way (B) Recursive Way (C) A & B (D) None

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1. Tree is _____ type of data structure.
(A) Static (B) Dynamic (C) Abstract (D) Hierarchical
 2. A Parent node can hold _____ child nodes.
(A) 0 (B) 1 (C) 2 (D) Any
 3. _____ node is the last/bottom node of the tree.
(A) Leaf (B) Parent (C) Inner (D) Root
 4. _____ node is any node which contains child node.
(A) Leaf (B) Parent (C) Inner (D) Root

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6. Adjacent list allows us to store graph in more _____ form then adjacency matrix.
(A) Complicated (B) Easy (C) Full (D) Compact
7. Adjacency matrix consumes huge amount of memory for storing _____ graphs.
(A) Small (B) Big (C) Each (D) All
8. The graph traversal is the problem of visiting all the nodes in a graph in a particular manner, _____ their values along the way
(A) Updating (B) Checking (C) A & B (D) Inserting
9. _____ is an algorithm for traversing finite graph.
(A) DFS (B) DFD (C) BFS (D) BFD
10. The Depth First Search begin with chosen _____ node.
(A) First (B) Last (C) Root (D) Bottom
11. _____ is a strategy for searching in a graph when search is limited to essentially two operations.
(A) DFS (B) DFD (C) BFS (D) BFD
12. Breadth First Search visits the sibling nodes before visiting the _____ nodes.
(A) Parent (B) Child (C) Root (D) None
13. Shortest Path Problem is the problem of finding a path between _____ in a graph.
(A) Nodes (B) Vertices (C) Edges (D) All
14. _____ is the best algorithm for shortest path problem
(A) Dijkstra (B) Cohen-sutherland (C) LIFO (D) BFS
15. A spanning tree of that graph is a _____ that is a tree and connects all the vertices together.
(A) Node (B) Sub Graph (C) Sub Tree (D) Edge
16. The full form of MST is Minimum _____ Tree.
(A) Single (B) Special (C) Sub (D) Spanning
17. _____ Algorithm finds a minimum spanning tree for a connected weighted graph.
(A) Dijkstrs (B) Kruskal (C) Both (D) None
18. _____ algorithm is a greedy algorithm.
(A) Dijkstra (B) Kruskal (C) Prim (D) All
19. Adjacent list doesn't allow us to make an _____ implementation, if dynamically change of vertices number is required.
(A) Perfect (B) Good (C) Efficient (D) Fast
20. Graph is _____ type of data structure.
(A) Hierarchical (B) Linear (C) Non-Linear (D) Abstract