



# SKILLS EXPLORER

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**QUESTIONS IN THE SELECTED TEST**

Q.1 Which data structure can be build with Heap sort?

1. Stack
2. Sparse Matrix
3. Priority Queue
4. Circular Linked List
5. None of these

Correct Answer : 3

**Solution: Priority Queue**

Q.2 What is the return type of malloc function?

1. int
2. clear
3. void
4. bool
5. None of these

Correct Answer : 1

**Solution: int**

Q.3 What is the minimum number of nodes in a complete binary tree with depth 3?

1. 4
2. 5
3. 7
4. 6
5. None of these

Correct Answer : 3

**Solution: 7**

Q.4 The complexity of Quick sort is

1.  $O(\log n)$

2.  $O(n \log n)$   
3.  $O(2n)$   
4.  $O(n^2)$   
5. None of these

Correct Answer : 2

**Solution:  $O(n \log n)$**

Q.5 Which of the following algorithm is slowest

1. Quick sort
2. Shell Sort
3. Heap Sort
4. Bubble Sort
5. None of these

Correct Answer : 4

**Solution: Bubble Sort**

Q.6 Which of the following data structure is of linear type?

1. Strings
2. Lists
3. Queues
4. All of the above
5. None of these

Correct Answer : 4

**Solution: All of the above**

Q.7 Which of the following used to implement recursion?

1. Graph
2. Stack
3. List
4. Queue
5. None of these

Correct Answer : 2

**Solution: Stack**

Q.8 A binary tree whose every node has either zero or two children is called

1. Complete binary tree
2. Binary search tree
3. Extended binary tree
4. B-Tree
5. None of these

Correct Answer : 3

**Solution: Extended binary tree**

Q.9 Which of the following is useful in traversing a given graph by breadth first search?

1. Stack
2. List
3. Queue
4. B-Tree
5. None of these

Correct Answer : 3

**Solution:**  
**Queue**

Q.10

In an extended-binary tree, the nodes with two children are called .....

1. Interior node
2. Domestic node
3. External node
4. Internal node
5. None of these

Correct Answer : 4

**Solution: Internal node**

Q.11 Sparse matrices have ?

1. many zero entries
2. many non- zero entries
3. higher dimension

4. All of the above
5. none of above

Correct Answer : 1

**Solution: many zero entries**

Q.12  $O \log(n)$  can be conneted with

1. Selection sort
2. Insertion sort
3. Binary sort
4. Merge sort
5. None of these

Correct Answer : 3

**Solution: Binary sort**

Q.13 Linked list are not suitable data structure of which one of the following problems ?

1. Insertion sort
2. Binary search
3. Radix sort
4. Polynomial manipulation
5. None of these

Correct Answer : 2

**Solution: Binary search**

Q.14 You can make telephone calls over the Internet using a technology called

1. Intertel
2. Telenet
3. VoIP
4. VoRP
5. None of these

Correct Answer : 3

**Solution: VoIP**

Q.15 The operation of processing each element in the list is known as

1. Sorting

2. Merging
3. Inserting
4. Traversal
5. None of these

Correct Answer : 4

**Solution: Traversal**

Q.16 Which of the following ways below is a pre order traversal?

1. Root->left sub tree-> right sub tree
2. Root->right sub tree-> left sub tree
3. right sub tree-> left sub tree->Root
4. left sub tree-> right sub tree->Root
5. None of these

Correct Answer : 4

**Solution: left sub tree-> right sub tree->Root**

Q.17 Breadth First search is used in

1. Binary trees
2. Stacks
3. Graphs
4. Both a and c above
5. None of above

Correct Answer : 3

**Solution: Graphs**

Q.18 In a heap, element with the greatest key is always in the \_\_\_\_\_ node.

1. leaf
2. root
3. first node of left sub tree
4. first node of right sub tree
5. None of these

Correct Answer : 2

**Solution: root**