

1.
Complete graph contains _____ no. of edges, if it contains "V" no. of vertices.

- A. $(V*(V+1))/2$
- B. $(V*(V-1))/2$
- C. V
- D. (V-1)

Answer: B

2.
Graph is said to be connected graph, if any vertex in it is _____ to remaining all the vertices.

- A. Adjacent
- B. Connected as well as Adjacent
- C. Connected
- D. All of the above
- E. Only C

Answer: D

3.
For a given graph G contains which V no. of vertices and E no. of edges, G1 can be referred as a subgraph of G only if:

- A. G1 contains V no. of vertices and E no. of edges exactly
- B. G1 contains V no. of vertices and less than E no. of edges
- C. G1 contains V-1 no. of vertices and more than E no. of edges
- D. G1 contains V-1 no. of vertices and E no. of edges

Answer: B

4.
Adjacency list representation of a graph can be implemented by using

- A. Linked lists of arrays
- B. Array of linked lists
- C. Linked list of linked lists
- D. Array of array

Answer: B

5.
Which of the following traversal method can be applied on a graph data structure?

- A. Depth First Search Traversal
- B. Breadth First Search Traversal
- C. Preorder Traversal
- D. Both A & B
- E. None of the above

Answer: D

6.
If the an edges in a graph are ordered pairs of vertices then such a graph is reffered as:

- A. Ordered Graph
- B. Simple Graph
- C. Cyclic Graph
- D. Di-graph

Answer: D

7.

Which of the following statement is false about graph

- A. Graph may contains zero no. of vertices and zero no. of edges
- B. Graph may contains zero no. of vertices and non-zero no. of edges
- C. Graph must contains non-zero no. of vertices and non-zero no. of edges
- D. All of the above
- E. None of the above

Answer: D

8.

All the nodes which can be accessible from any node are referred as its _____.

- A. Ancestors
- B. Descendents
- C. Followers
- D. Siblings

Answer: B

9.

_____ is also called as Binary Heap

- A. Complete Binary Tree
- B. Strictly Binary Tree
- C. Full Binary Tree
- D. All of the above
- E. None of the above

Answer: A

10.

Minimum height of the Binary Search Tree for "n" input size is:

- A. n
- B. $\log n$
- C. $n/2$
- D. None of the above

Answer: B

11.

In which of the following type of tree each node must contains exactly two no. of childs?

- A. Binary Tree
- B. Compulsory Binary Tree
- C. Strictly Binary Tree
- D. Full Binary Tree

Answer: C

12.

The best example of heirarchical data structure is

- A. Graph
- B. Tree
- C. Hash Table
- D. Direct Access Table

Answer: B

13.

_____ traversal method always visits/prints an elements in a binary search tree in a sorted order.

- A. Inorder
- B. Preorder
- C. Postorder
- D. Both A & B

Answer: A

14.

A threaded binary tree is a binary tree in which every node that does not have right child has a link to its

- A. Pre-order successor
- B. In-order successor
- C. In-order predecessor
- D. Post-order successor

Answer: B

15.

In a _____ tree key value of parent node is always greater than its childs.

- A. Complete Binary Tree
- B. Balanced Binary Search Tree
- C. Max-Heap
- D. Min-Heap
- E. All of the above

Answer: C