Graph Theory MCQ Questions and Answers Pdf

1. In which tree, for every node the height of its left sub tree and right sub tree differ at least by one?
   a. AVL tree
   b. Binary search tree
   c. Complete tree
   d. Threaded binary tree
   Ans: A

2. A graph in which all nodes are of equal degree is called
   a. Multigraph
   b. Non regular graph
   c. Regular graph
   d. Complete graph
   Ans: C

3. A vertex of degree one is called
   a. Pendent
   b. Isolated vertex
   c. Null vertex
   d. Coloured vertex
   Ans: A

4. The terminal vertices of a path are of degree
   a. One
   b. Two
   c. Zero
   d. More than four
   Ans: A

5. A simple graph in which there exists an edge between every pair of vertices is called
   a. Incomplete graph
   b. Eular graph
   c. Planner graph
   d. Complete graph
   Ans: D

6. A graph with n vertices and n - 1 edges that is not a tree, is
   a. connected

b. disconnected

c. euler

d. a circuit

Ans: B

7. Which of the following sorting method is stable?

a. Straight insertion sort

b. Binary insertion sort

c. Shell sort

d. Heap sort

Ans: A

8. What is the true complexity of linear search algorithm over an array of n element?

a. 0 (n)

b. $O(n / \log_2 n)$

c. $O(n^2)$

d. $(\log_2 n)$

Ans: A

9. Preorder is nothing but

a. Depth first order

b. Breadth first order

c. Topological order

d. Linear order

Ans: A

10. A circuit in a connected graph which includes every vertex of the graph is called

a. Euler

b. Universal

c. Hamilton

d. Cheque

Ans: C