**TREES**

1.Define a binary tree and give an example.

2.List any four operations on binary tree.

3. Differentiate between heap tree and height balanced tree with suitable example.   
4. Explain the properties of a binary search tree in detail.  
5. Develop a binary search tree resulting after inserting the following integer keys: 49, 27, 12, 11, 33, 77, 26, 56, 23, 6. (i) Check whether the tree is almost complete or not? (ii) Determine the height of the tree (iii) Write post order and preorder traversals.

6. Define a binary search tree and what are the properties of binary search tree.  
7. Construct binary search tree for given data and write the different traversals of tree. (100 150 125 25 12 50 135 75 62 175)

8. Write an algorithm of double rotation of an AVL tree.  
9.Explain insertion, deletion and display procedures of AVL tree.

10. Define path in a tree.

11. Define binary search tree. Show how to insert and delete an element from binary search tree.

12. What is a binary tree? Construct a binary tree given the pre-order traversal and in order traversals as follows:

Pre-Order Traversal: G B Q A C K F P D E R H

In-Order Traversal: Q B K C F A G P E D H R

13.Show that the maximum number of nodes in a binary tree of height H is 2H+1-1.

14.What are the different tree traversals? Explain with example.

15. Write an iterative function to search for a key value in Binary search tree.

16.Explain in detail about creation of a binary search tree and insertion of a node into a binary search tree with suitable example.

17.Write steps for inorder, preorder and postorder traversals.

18. Explain, in detail, deletion of a node from a binary tree with one suitable example.

19. Explain binary tree ADT.

20.Discuss representation of binary tree using arrays and linked list.