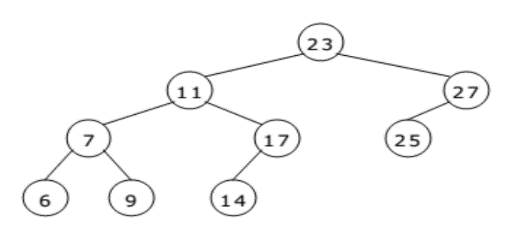
**TREES**

**Part – A**

1. Define AVL trees.
2. What is a Binary search tree?
3. What are the various traversals in a Binary Tree?
4. What is a B tree? State its Properties?
5. Define Level of a node
6. What is Balance Factor of a node?
7. Define leaf node and siblings of a node
8. What are Tries?
9. Explain Array representation of a Binary tree
10. Explain the linked list representation of a Binary tree.
11. Define binary search tree?
12. What is the advantage of using binary search trees?
13. Define AVL Tree. How Balance Factor is maintained?
14. Define Binary Tree and Construct a Binary Tree whose Postorder Traversal is : 1, 2, 3, 4, 5, 6, and 7.
15. Define Binary search.
16. Define Internal Nodes.
17. Write down the class definition of a B-tree.
18. Differentiate Terminal and Non-Terminal Nodes.
19. Define height of a binary tree. Also find the number of nodes in a complete binary tree with height h?
20. What is depth first traversal? Give example?
21. Define heap structure?
22. Define Tree? Give the Array Representation of Tree?
23. Name two types of Heap Tree?
24. Give the Property of a Heap Tree?
25. Define Binary Tree? Give Linked List Representation of Binary Tree?
26. State Binary Search Tree Properties?
27. Give any two properties of Binary Tree?
28. Define Threaded Binary Tree?
29. Differentiate Height and Depth of a Tree?
30. Define Degree of a Tree?
31. Give the Pre-order Representation of the below Tree:



1. Give the ADT Representation of Binary Tree?
2. Define Tries?
3. Name the AVL Rotations?
4. Define Splay Trees and its Rotations.
5. xplain Binary tree with its traversal and write
6. algorithm for deleting element from binary tree
7. Define B-Trees. Write an algorithm for different tree
8. traversals with example
9. efine height of a binary tree. Also find the number of nodes in a
10. complete binary tree with height h
11. efine height of a binary tree. Also find the number of nodes in a
12. complete binary tree with height hDefine height of a binary tree. Also find the number of nodes in acomplete binary tree with height h
13. Define Binary tree and construct a binary tree whose
14. post order traversal is 1, 2, 3, 4, 5, 6, and 7
15. Define Binary tree and construct a binary tree whose
16. post order traversal is 1, 2, 3, 4, 5, 6, and 7
17. Define Binary tree and construct a binary tree whose
18. post order traversal is 1, 2, 3, 4, 5, 6, and 7
19. Define Binary tree and construct a binary tree whose
20. post order traversal is 1, 2, 3, 4, 5, 6, and 7
21. Define Binary tree and construct a binary tree whose
22. post order traversal is 1, 2, 3, 4, 5, 6, and 7

**Part – B**

1. Explain the Tree Traversal Techniques using Recursive Procedure in detail.
2. Explain the Tree Traversal Techniques using Non-Recursive Procedure (Stack Implementation) in detail.
3. Explain the Insertion of a node in a Binary search tree (BST).
4. (a) State the terminologies of Binary Tree. (b) Give array and Linked List Representation of Binary Tree.
5. Explain the Deletion operation in Binary search tree (BST)
6. Explain in detail about B-trees – Insertion Procedure.
7. Explain in detail about B-trees – Deletion Procedure.
8. Explain briefly about Threaded Binary Trees?
9. Explain AVL trees in detail.
10. Describe the operations creating, searching, insertion deletions of ‘B’ Tree. Explain each with suitable example.
11. Explain about the Height balanced trees with illustration.
12. Define B-Trees. Write an algorithm for different tree traversals with example.
13. Explain Binary Tree with its Traversal and write algorithm for Deleting an element from Binary Tree.
14. Define Splay Trees and explain its Rotations?
15. Explain Insertion and Deletion in B trees?
16. Explain the different tree traversals. Write an algorithm to find an element from
17. Binary Search tree – Search and Deletion Operation
18. Define Heap Tree and its Properties. Explain Heapify Procedure?
19. (a) What is meant by a height balanced tree? (b) Write down the algorithm for height balancing.
20. Explain B-Tree with neat Example.
21. ain the different tree traversals.
22. (b) Write an algorithm to find an element from binary sear

plain the different tree traversals.

(b) Write an algorithm to find an element from binary search tr

hat is meant by an height balanced tree? (4)

(b) Write down the algorithm for height balancing