

UNIT-5: Trees, Graph Traversal & NP

Completeness

Most Important Questions

1. Explain Binary Search Tree (BST) with insertion and deletion.
2. Write algorithm for deletion in BST.
3. Explain AVL Tree and Balance Factor.
4. Explain AVL Tree Rotations (LL, RR, LR, RL).
5. Explain B-Tree with example.
6. Construct B-Tree of given order.
7. Explain 2-3 Tree with example.
8. Explain Breadth First Search (BFS) with algorithm.
9. Explain Depth First Search (DFS) with algorithm.
10. Compare BFS and DFS.
11. Explain Tree Traversals (Inorder, Preorder, Postorder).
12. Explain NP-Completeness with examples.
13. Differentiate P, NP, NP-Hard and NP-Complete Problems.

Frequently Asked Short Questions

- What is BST?
- What is AVL Tree?
- Define Balance Factor.
- Define B-Tree.
- Define 2-3 Tree.
- What is BFS?
- What is DFS?
- Define NP-Complete Problem.