## **Generated Question Paper**

**Exam Type: Theory** 

**Total Marks: 70** 

- 1. Detect a cycle in a directed graph using DFS.
- 2. Detect a cycle in a directed graph using DFS.
- 3. Find the shortest path in an unweighted graph.
- 4. Implement Kadane's Algorithm for maximum subarray sum.
- 5. Implement Kadane's Algorithm for maximum subarray sum.
- 6. Solve the 0/1 Knapsack problem using Dynamic Programming.
- 7. Find the minimum number of coins required to make a given amount.
- 8. Find the lowest common ancestor (LCA) of two nodes in a binary tree.
- 9. Implement preorder, inorder, and postorder traversal of a binary tree.