Sample Paper

1. What are the differences between NP, NP-Complete and NP-9?

Topic: P and NP Difficulty: 5

2. Considering the tree obtained after Q.2.(b) to be an AVL Tree, insert 50, 65, 55, and 70 sequentially into it.

Topic: TREE Difficulty: 5

3. What is an Algorithm?

Topic: COMPLEXITY Difficulty: 2

4. Time complexity of 0/1 knapsack problem where n and w represents the number of items and capacity of knapsack respectively

Topic: DP Difficulty: 2

5. WAP to Convert a Singly Linked List to Circular Linked List

Topic: LINKED LIST Difficulty: 2

6. What is the difference between Backtracking and Recursion?

Topic: BACKTRACKING Difficulty: 5

7. How many stacks are needed to implement a queue. Consider the situation where no other data structure like arrays, linked list is available to you.

Topic: QUEUE Difficulty: 2

8. Run Dijkstras algorithm on the directed graph, starting at vertex . Show all the intermediate graphs in deriving the final shortest path tree. What is the order in which vertices get removed from the priority queue?

Topic: GRAPHS Difficulty: 9

9. Check if two binary trees are identical or not

Topic: STACK Difficulty: 9

10. WAP to Fix a binary tree that is only one swap away from becoming a BST

Topic: BST

Difficulty: 9