TREE

1. Level order traversal
2. Reverse Level Order traversal
3. Height of a tree
4. Diameter of a tree
5. Mirror of a tree
6. Inorder Traversal of a tree both using recursion and Iteration
7. Preorder Traversal of a tree both using recursion and Iteration
8. Postorder Traversal of a tree both using recursion and Iteration
9. Left View of a tree
10. Right View of Tree
11. Top View of a tree
12. Bottom View of a tree
13. Zig-Zag traversal of a binary tree
14. Check if a tree is balanced or not
15. Diagnol Traversal of a Binary tree
16. Boundary traversal of a Binary tree
17. Construct Binary Tree from String with Bracket Representation
18. Convert Binary tree into Doubly Linked List
19. Convert Binary tree into Sum tree
20. Construct Binary tree from Inorder and preorder traversal
21. Find minimum swaps required to convert a Binary tree into BST

22. Check if Binary tree is Sum tree or not
23. Check if all leaf nodes are at same level or not
24. Check if a Binary Tree contains duplicate subtrees of size 2 or more [IMP]
25. Check if 2 trees are mirror or not
26. Sum of Nodes on the Longest path from root to leaf node
27. Check if given graph is tree or not. [IMP]
28. Find Largest subtree sum in a tree
29. Maximum Sum of nodes in Binary tree such that no two are adjacent
30. Print all "K" Sum paths in a Binary tree
31. Find LCA in a Binary tree
32. Find distance between 2 nodes in a Binary tree
33. Kth Ancestor of node in a Binary tree
34. Find all Duplicate subtrees in a Binary tree [IMP]
35. Tree Isomorphism Problem

36. Fina a value in a BST
37. Deletion of a node in a BST
38. Find min and max value in a BST
39. Find inorder successor and inorder predecessor in a BST
40. Check if a tree is a BST or not
41. Populate Inorder successor of all nodes
42. Find LCA of 2 nodes in a BST
43. Construct BST from preorder traversal

44. Convert Binary tree into BST
45. Convert a normal BST into a Balanced BST
46. Merge two BST [V.V.V>IMP]
47. Find Kth largest element in a BST
48. Find Kth smallest element in a BST
49. Count pairs from 2 BST whose sum is equal to given value "X"
50. Find the median of BST in O(n) time and O(1) space
51. Count BST ndoes that lie in a given range
52. Replace every element with the least greater element on its right
53. Given "n" appointments, find the conflicting appointments
54. Check preorder is valid or not
55. Check whether BST contains Dead end
56. Largest BST in a Binary Tree [V.V.V.V.V IMP]

GRAPH

1. Create a Graph, print it
2. Implement BFS algorithm
3. Implement DFS Algo
4. Detect Cycle in Directed Graph using BFS/DFS Algo
5. Detect Cycle in UnDirected Graph using BFS/DFS Algo
6. Search in a Maze
7. Minimum Step by Knight
8. flood fill algo
9. Clone a graph
10. Making wired Connections
11. word Ladder
12. Dijkstra algo
13. Implement Topological Sort
14. Minimum time taken by each job to be completed given by a Directed Acyclic Graph
15. Find whether it is possible to finish all tasks or not from given dependencies
16. Find the no. of Isalnds
17. Given a sorted Dictionary of an Alien Language, find order of characters
18. Implement Kruksal'sAlgorithm
19. Implement Prim's Algorithm
20. Total no. of Spanning tree in a graph

21. Implement Bellman Ford Algorithm
22. Implement Floyd warshallAlgorithm
23. Travelling Salesman Problem
24. Graph ColouringProblem
25. Snake and Ladders Problem
26. Find bridge in a graph
27. Count Strongly connected Components(Kosaraju Algo)
28. Check whether a graph is Bipartite or Not
29. Detect Negative cycle in a graph
30. Longest path in a Directed Acyclic Graph
31. Journey to the Moon
32. Cheapest Flights Within K Stops
33. Oliver and the Game
34. Water Jug problem using BFS
35. Water Jug problem using BFS
36. Find if there is a path of more thank length from a source
37. M-ColouringProblem
38. Minimum edges to reverse o make path from source to destination
39. Paths to travel each nodes using each edge(Seven Bridges)
40. Vertex Cover Problem
41. Chinese Postman or Route Inspection
42. Number of Triangles in a Directed and Undirected Graph

43. Minimise the cashflow among a given set of friends who have borrowed money from each other.

44. Two Clique Problem