

## **Questions -**

### **Binary tree**

Inorder, preorder, postorder Traversal (with recursion and without recursion)

Left, bottom, top, right View Of Binary Tree

Level order Traversal

Level order traversal in spiral form

Height of a Binary Tree

Check if Binary tree is balanced or not

Diameter of Binary Tree

Diagonal traversal

Boundary traversal

Check if two trees are identical or not

Maximum path sum

Construct Binary Tree from inorder and preorder, Inorder and Postorder

Symmetric Binary Tree

LCA in Binary Tree

Flatten Binary Tree to LinkedList

Check if Binary Tree is mirror of itself or not

Binary Tree to Double Linked List

### **Bst**

Find inorder successor and inorder predecessor

Insertion, deletion, searching

Find min and max value

Find K-th smallest and K-th largest element in BST

Check if a BT is BST or not

Construct bst from preorder

Convert binary tree to bst

Convert normal bst to balanced bst

Populate Next Right pointers of Tree

Find LCA of two nodes in BST

Find a pair with a given sum in BST

BST iterator

Size of the largest BST in a Binary Tree

Serialize and deserialize Binary Tree

Merge 2 bsts

### **Extra questions**

#### **Trees -**

<https://www.geeksforgeeks.org/construct-binary-tree-string-bracket-representation/>  
<https://practice.geeksforgeeks.org/problems/transform-to-sum-tree/1>  
<https://practice.geeksforgeeks.org/problems/sum-tree/1>  
<https://practice.geeksforgeeks.org/problems/leaf-at-same-level/1>  
<https://practice.geeksforgeeks.org/problems/check-if-tree-is-isomorphic/1>  
<https://practice.geeksforgeeks.org/problems/duplicate-subtree-in-binary-tree/1>  
<https://practice.geeksforgeeks.org/problems/check-mirror-in-n-ary-tree/0>  
<https://practice.geeksforgeeks.org/problems/sum-of-the-longest-bloodline-of-a-tree/1>  
<https://www.geeksforgeeks.org/check-given-graph-tree/#:~:text=Since%20the%20graph%20is%20undirected,graph%20is%20connected%2C%20otherwise%20not.>  
<https://www.geeksforgeeks.org/find-largest-subtree-sum-tree/>  
<https://practice.geeksforgeeks.org/problems/duplicate-subtrees/1>  
<https://www.geeksforgeeks.org/kth-ancestor-node-binary-tree-set-2/>  
<https://www.geeksforgeeks.org/print-k-sum-paths-binary-tree/>  
<https://www.geeksforgeeks.org/maximum-sum-nodes-binary-tree-no-two-adjacent/>  
<https://www.geeksforgeeks.org/minimum-swap-required-convert-binary-tree-binary-search-tree/#:~:text=Given%20the%20array%20representation%20of,it%20into%20Binary%20Search%20Tree.&text=Swap%201%3A%20Swap%20node%208,node%209%20with%20node%2010.>  
<https://practice.geeksforgeeks.org/problems/populate-inorder-successor-for-all-nodes/1>  
<https://practice.geeksforgeeks.org/problems/brothers-from-different-root/1>  
<https://www.geeksforgeeks.org/find-median-bst-time-o1-space/>  
<https://practice.geeksforgeeks.org/problems/count-bst-nodes-that-lie-in-a-given-range/1>  
<https://www.geeksforgeeks.org/replace-every-element-with-the-least-greater-element-on-its-right/>  
<https://www.geeksforgeeks.org/given-n-appointments-find-conflicting-appointments/>  
<https://practice.geeksforgeeks.org/problems/preorder-to-postorder4423/1>  
<https://practice.geeksforgeeks.org/problems/check-whether-bst-contains-dead-end/1>  
<https://practice.geeksforgeeks.org/problems/largest-bst/1>  
<https://www.geeksforgeeks.org/flatten-bst-to-sorted-list-increasing-order/>

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## Graphs –

Create a graph

DFS

BFS

Detect A cycle in Undirected Graph/Directed Graph using bfs/dfs

Topo Sort

Number of islands (Do in Grid and Graph both)

Bipartite Check

SCC(using KosaRaju's algo)

Dijkstra's Algorithm

Bellman Ford Algo

Floyd Warshall Algorithm

MST using Prim's Algo

MST using Kruskal's Algo

Word ladder

Rotten Orange

## Extra questions –

<https://practice.geeksforgeeks.org/problems/rat-in-a-maze-problem/1>

<https://practice.geeksforgeeks.org/problems/steps-by-knight5927/1>

<https://leetcode.com/problems/clone-graph/>

<https://leetcode.com/problems/number-of-operations-to-make-network-connected/>

<https://www.geeksforgeeks.org/minimum-time-taken-by-each-job-to-be-completed-given-by-a-directed-acyclic-graph/>

<https://www.geeksforgeeks.org/find-whether-it-is-possible-to-finish-all-tasks-or-not-from-given-dependencies/>

<https://practice.geeksforgeeks.org/problems/alien-dictionary/1>

<https://www.geeksforgeeks.org/total-number-spanning-trees-graph/>

<https://www.geeksforgeeks.org/travelling-salesman-problem-set-1/>

<https://www.geeksforgeeks.org/graph-coloring-applications/#:~:text=Graph%20coloring%20problem%20is%20to,are%20colored%20using%20same%20color.>

<https://leetcode.com/problems/snakes-and-ladders/>

<https://www.geeksforgeeks.org/two-clique-problem-check-graph-can-divided-two-cliques/>

<https://www.geeksforgeeks.org/minimize-cash-flow-among-given-set-friends-borrowed-money/>

<https://www.geeksforgeeks.org/number-of-triangles-in-directed-and-undirected-graphs/>

<https://www.geeksforgeeks.org/chinese-postman-route-inspection-set-1-introduction/>

<https://www.geeksforgeeks.org/vertex-cover-problem-set-1-introduction-approximate-algorithm-2/>

<https://www.geeksforgeeks.org/paths-travel-nodes-using-edges-even-bridges-konigsberg/>

<https://www.geeksforgeeks.org/minimum-edges-reverse-make-path-source-destination/>

<https://practice.geeksforgeeks.org/problems/m-coloring-problem-1587115620/1>

<https://www.geeksforgeeks.org/find-if-there-is-a-path-of-more-than-k-length-from-a-source/>

<https://www.geeksforgeeks.org/water-jug-problem-using-bfs/>

<https://www.hackerearth.com/practice/algorithms/graphs/topological-sort/practice-problems/algorithm/oliver-and-the-game-3/>

<https://leetcode.com/problems/cheapest-flights-within-k-stops/description/>

<https://www.hackerrank.com/challenges/journey-to-the-moon/problem>

<https://www.geeksforgeeks.org/find-longest-path-directed-acyclic-graph/>

<https://www.geeksforgeeks.org/detect-negative-cycle-graph-bellman-ford/>

<https://www.geeksforgeeks.org/bridge-in-a-graph/>

**Flood-fill Algorithm**

<https://www.geeksforgeeks.org/check-if-all-levels-of-two-trees-are-anagrams-or-not/>

<https://practice.geeksforgeeks.org/problems/distance-of-nearest-cell-having-1-1587115620/1>

**Misc**

<https://www.geeksforgeeks.org/sum-minimum-maximum-elements-subarrays-size-k/>

<https://practice.geeksforgeeks.org/problems/game-with-string/0>

<https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream/0>