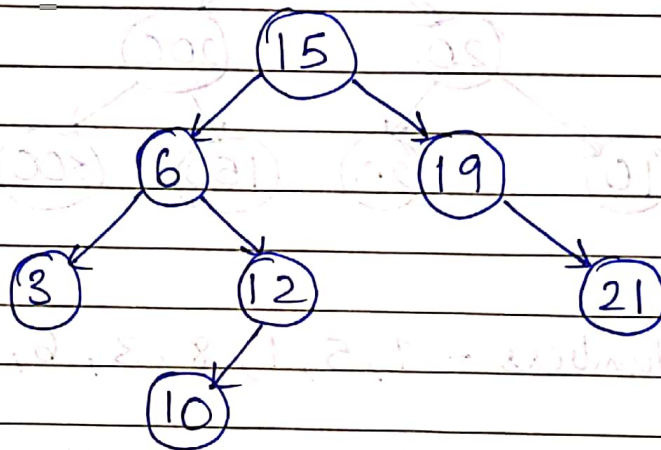


Q.1.

→ The given traversal does not exist because we cannot do these traversals for a generic tree. They are only meant for the binary trees.

Q.2. The final tree after adding and deleting is

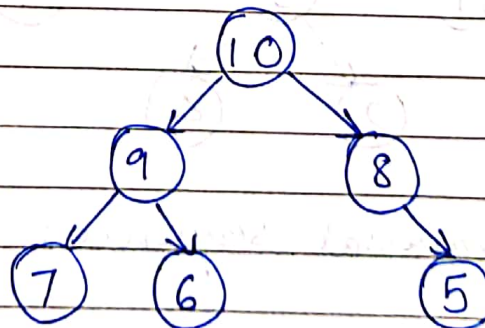


→ This is not an AVL (Height Balanced) Tree.

Q.4.

→ False, In Preorder traversal of binary search tree, the first item printed out is not the smallest one.

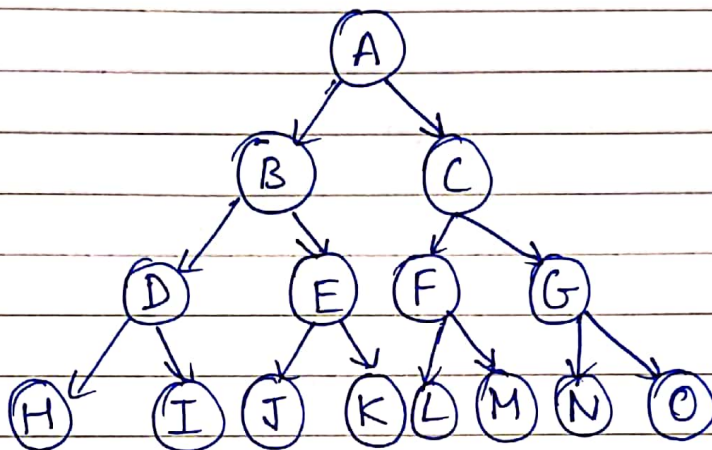
Example .



Preorder Traversal - 10 9 7 6 8 5 .

Q.3

If T is a complete binary tree of height 3, it has all levels completely filled except possibly the last level and the last keys has all keys as left as possible.



Maximum Nodes: 15

Minimum Nodes: 8

Leaf Nodes: H, I, J, K, L, M, N, O

Internal Nodes: A, B, C, D, E, F, G.

Q.5.

→ The Breadth First or Level Order Traversal is: 2, 3, 5, 10, 8, 7, 22, 11, 13, 20, 24, 16

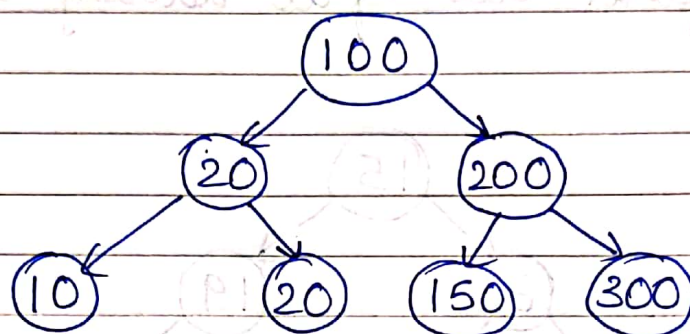
2	3	5	10	8	7	22	11	13	20	24	16	Null	Null	Null
---	---	---	----	---	---	----	----	----	----	----	----	------	------	------

→ And, the deletion and addition operation is not possible in this tree, because this is not a binary search tree. These operations only exist for the binary search trees.

Q.6.

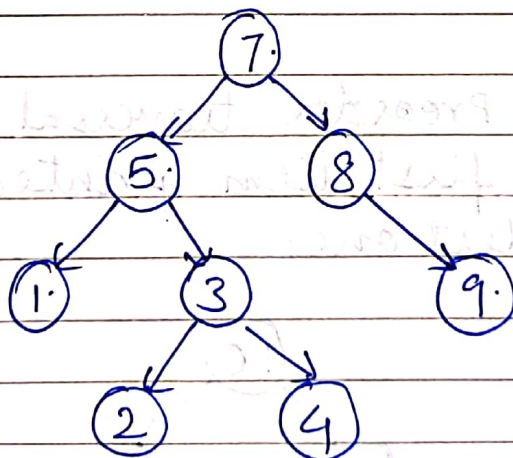
Post Order Traversal : (Left, Right, Root)

10, 30, 20, 150, 300, 200, 100



Q.7. The Numbers - 7, 5, 1, 8, 3, 6, 0, 9, 4, 2

The Binary Search Tree for the following is



Inorder Traversal Sequence :

③ 0, 1, 2, 3, 4, 5, 6, 7, 8, 9