Quiz

question-1

1) In-order :-

A → K → B → J → C → I → L → D → E → F → H → G

Pre-order :-

L → K → A → J → B → C → I → H → E → D → F → G

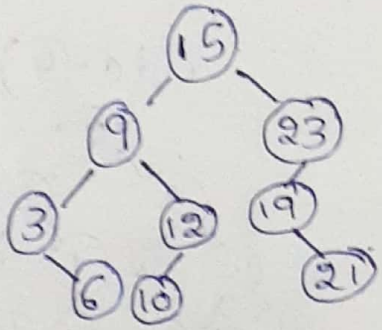
Post-order :-

A → B → C → J → K → I → D → E → F → G → H → L

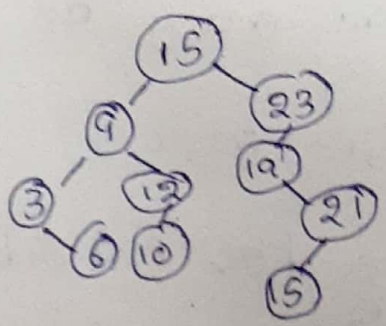
Breadth-first-order :-

L → K → I → H → A → J → E → F → G → B → C → D

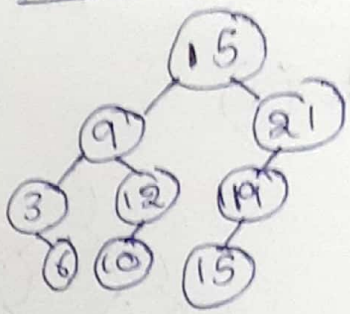
2) Add (6)



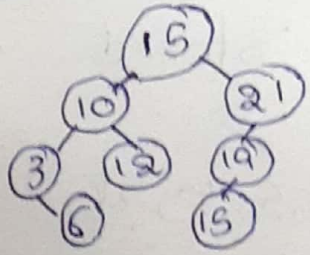
Add (15)



Delete (23).



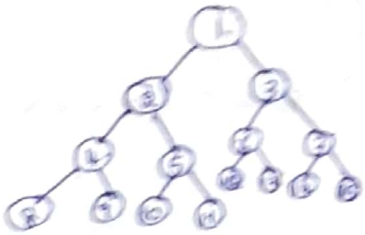
Delete → (9)



Height of left sub-tree & Height of right sub-tree = 0

∴ The tree is AVL.

3) If every internal node has two children largest number of nodes = 15.

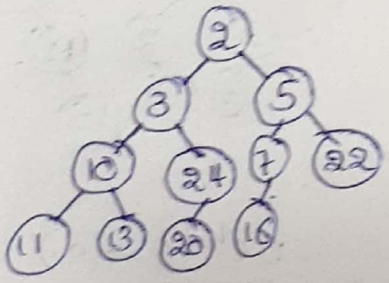


1, 2, 3, 4, 5, 6, 7 → internal nodes

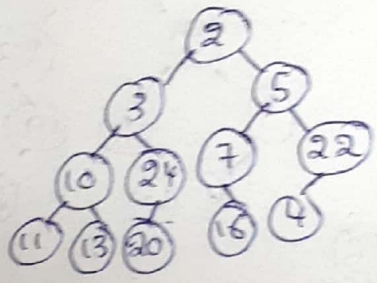
8, 9, 10, 11, 12, 13, 14, 15 → leaf nodes

4) The first value that will be printed in Pre-order traversal is root. In binary search root value is always greater than it's left child. Hence the given statement is wrong.

5) Delete (8)



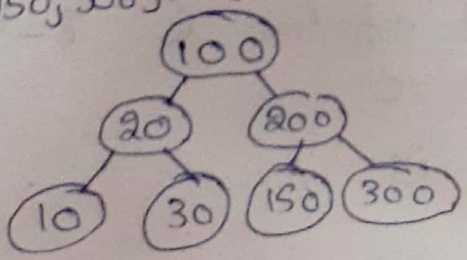
add (4)



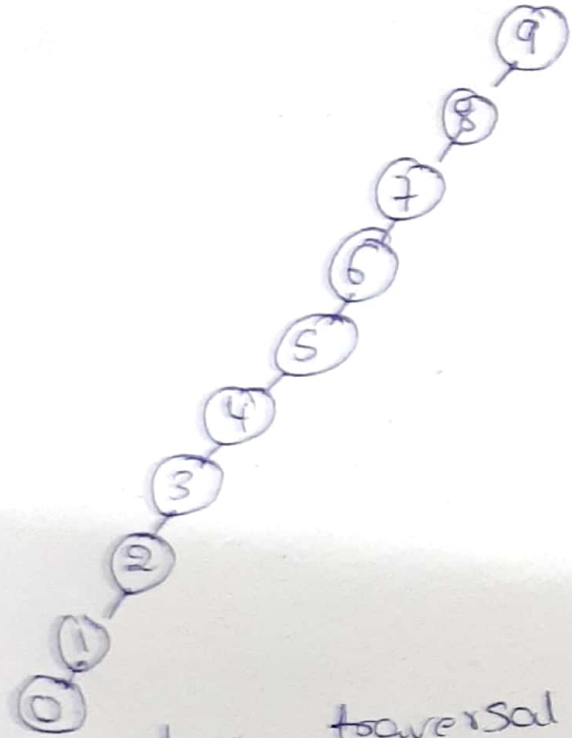
It is stored in an array as given below;

[2, 3, 5, 10, 24, 7, 22, 11, 13, 20, 16, 4].

6) The binary search tree for post order sequence - 10, 30, 20, 150, 300, 200, 100



7)



Inorder traversal sequence, 0→1→2→3→4→5→6→7→8→9.