

① (i) Inorder (left, root, right)

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

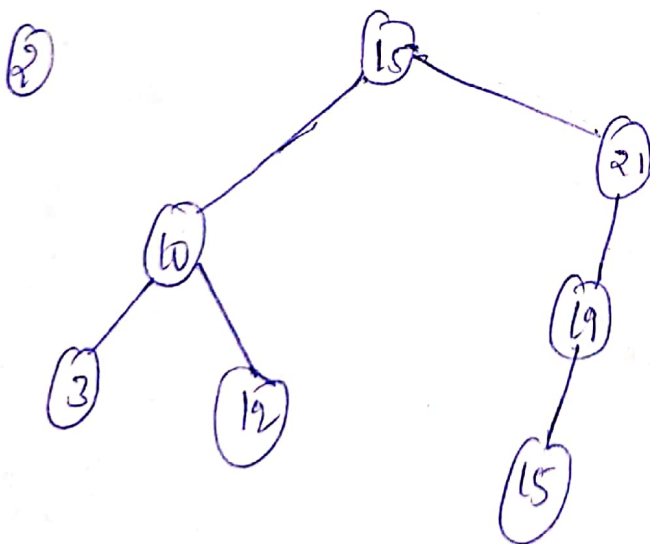
(ii) Preorder (Root, left, right)

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

(iii) Post order (left, right, Root):

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

②



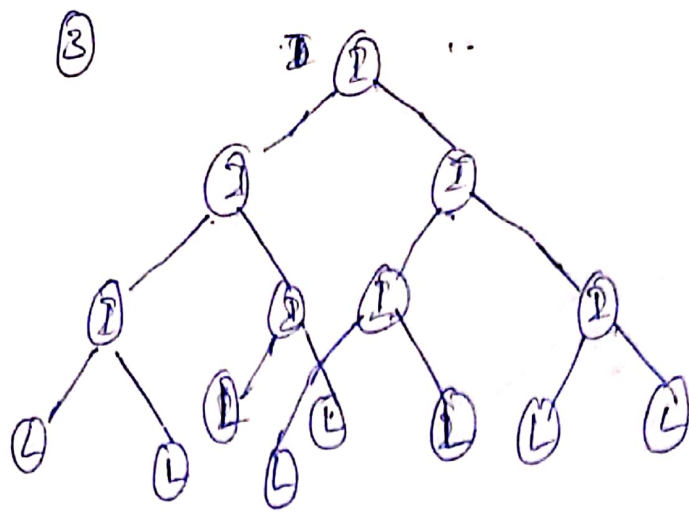
The difference between the
Height of left sub-tree and
Height of right sub-tree is 0.

∴ The tree is AVL.

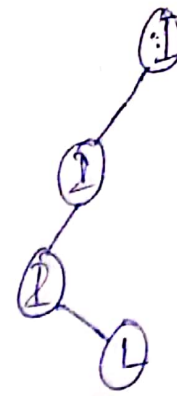
③

(iv) Breadth-first order:

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



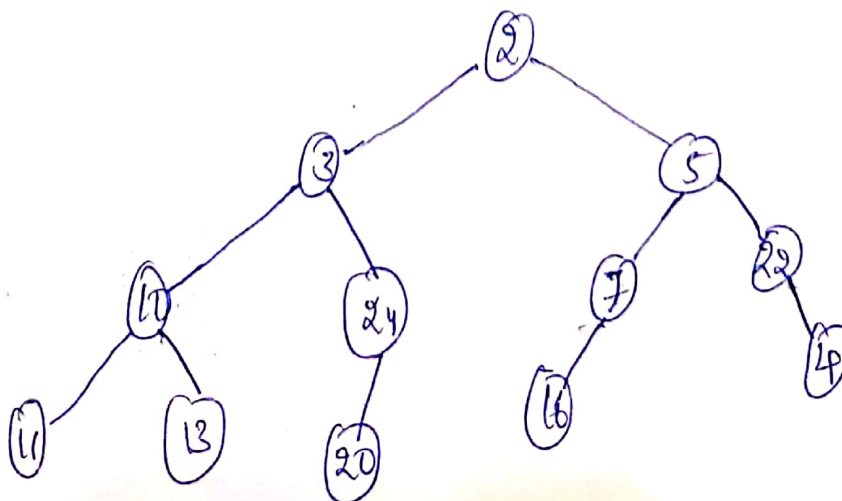
No. of nodes = 15
 Internal nodes = 7
 Leaf nodes = 8
 L → leaf nodes
 I → internal nodes



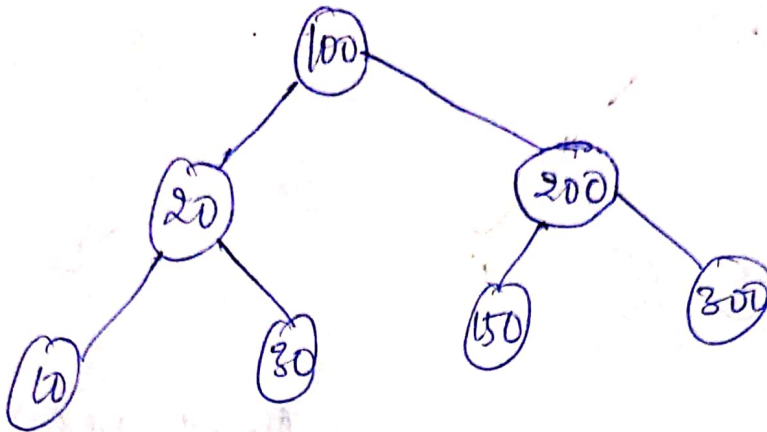
No. of nodes = 4
 Internal nodes = 3
 Leaf nodes = 1
 L → leaf node
 I → internal nodes.

④ False, The first node that is printed in preorder traversal is root. Root is greater than nodes in the left subtree.

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



⑥ post order (left, right, root)



⑦ In order (left, root, right):

