

19BCS111

Data Structure Quiz

Q1

(i) In order (left, root, right)

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

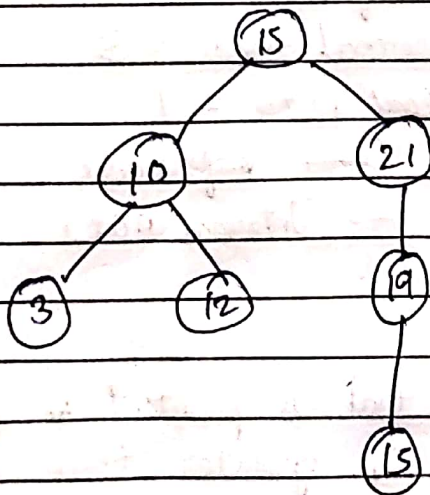
(ii) Preorder (Root, left, right)

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

(iii) Postorder (left, right, root)

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

Q2



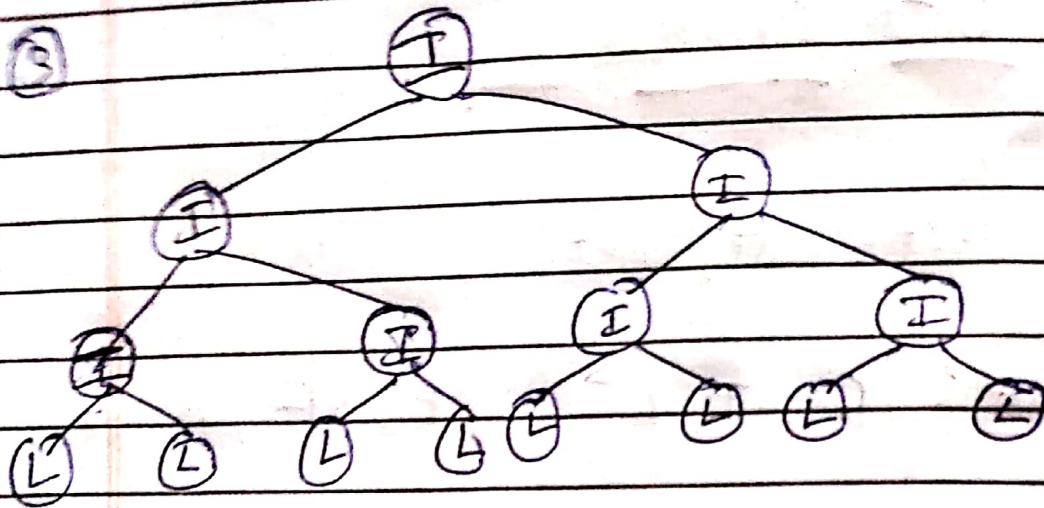
The difference between the Height of left subtree and Height of right subtree is 0

∴ The tree is AVL

Q3

(i) Breadth-first order :-

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



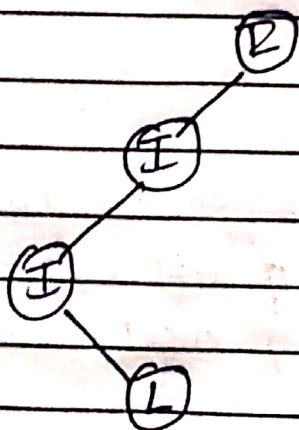
No of nodes = 15

Internal nodes = 7

leaf nodes = 8

L → leaf node

I → Internal node



No of nodes = 4

Internal nodes = 3

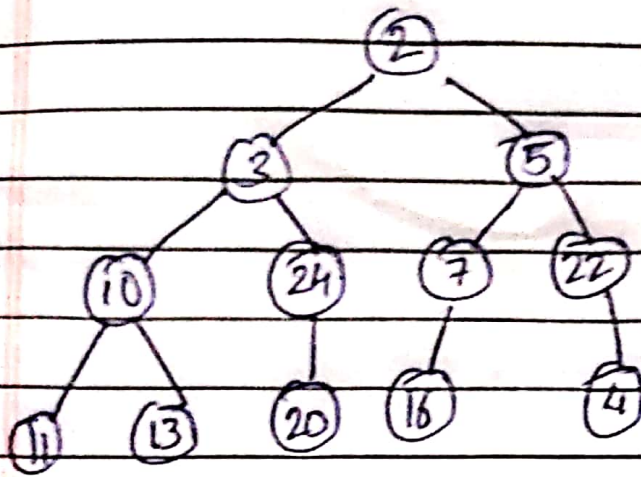
leaf nodes = 1

L → leaf node

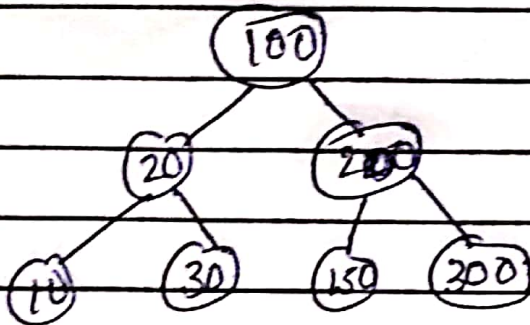
I → Internal node

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) Inorder (left, root, right):

