Ravi Shankar Sharma (19BCS091)

ASSIGNMENT-1   Tree-Quiz Question
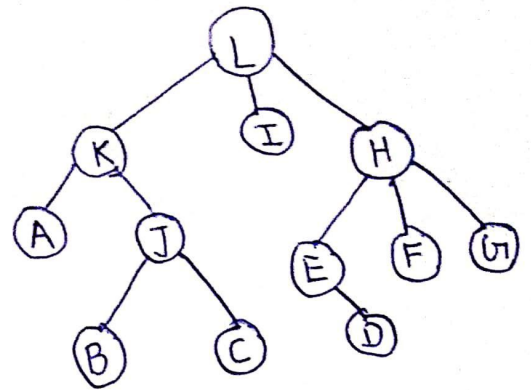
1)

Inorder
   AKBJCLIDEHFG
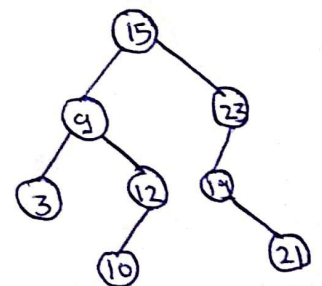
Pre Order
   LKAJBCIHEDFG

Post Order
   ABCJKIEDFGHL
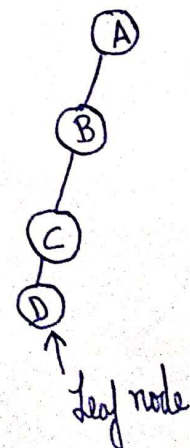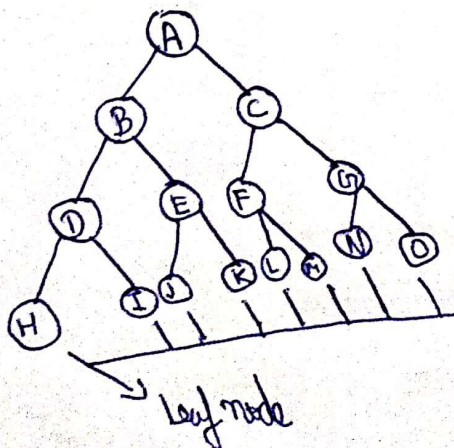
Breadth-first Order.
   LKIHAJEFGBCD

2) yes, The given tree is AVL
      This tree is also Binary Search tree

3) $h=3$
      Max no of nodes $\Rightarrow 2^{h+1}-1 = 2^4-1 = 15$
      Min no of nodes $\Rightarrow h+1 = 3+1 = 4$

Leaf node

Leaf node

Assignment 1 - Tree- QUIZ - Question

4) It is false that the first item printed out is always the smallest one in pre-order traversal.
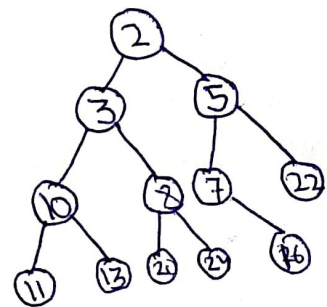
In pre-order traversal.

Root, Left, Right

Element of left subtree < Root < Element of right subtree.
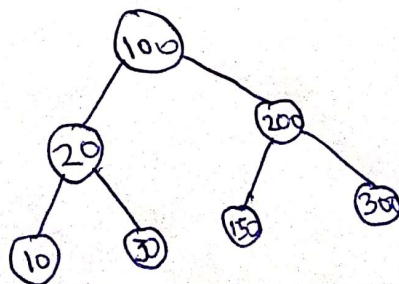
in BST(Binary Search Tree)

So always the first item is greater than element of left subtree.

5) Breadth-first or level order Traversal.
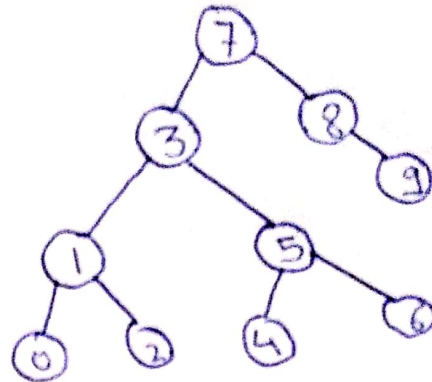
2, 3, 5, 10, 8, 7, 22, 11, 13, 20, 24, 16

6) Post Order → 10, 30, 20, 150, 360, 200, 100

In Order → 10, 20, 30, 100, 150, 200, 300

7) Assignment 1 - Tree Question QUIZ   (19BCS091)

   Option 3 ⇒ 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

ZOOM class - assignment . (Trees)   Slide no → 39

InOrder → Z W S B Y R A' A E U G P J

PreOrder → A B S W Z R Y A' U E P G J

PostOrder → Z W S Y A' R B E G J P U A

Breadth-first → A B U S R E W Y A' G J Z