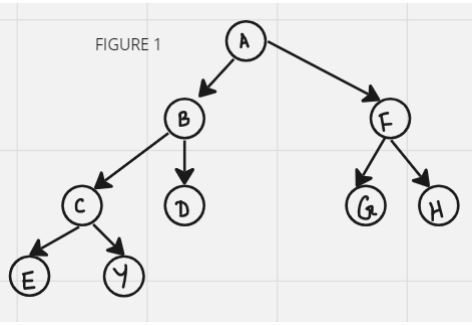

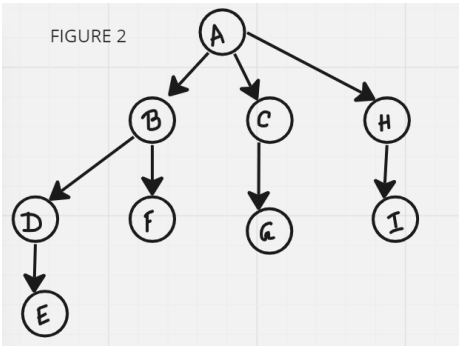

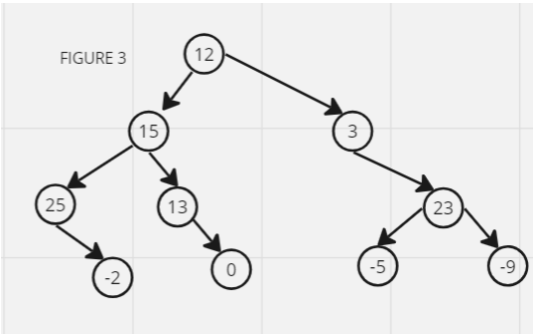

1. For all figures: (0.25+0.25+0.25+0.25) = 1

   a. Is this a binary tree?

   = f1, f3 is binary

   b. Identify whether the binary trees are full, complete, perfect and balanced or not (for each figure which is binary)?

   = f1 → full, complete, not perfect, balanced

   f3 → not full, not complete, not perfect, balanced

2. For figure 2, find out the depth of node D and find out the height of the node B and height of the tree?(0.25)

   = depth(D) → 2, height(B) → 2, height(tree) → 3

3. Write down the post-order, pre-order and in-order traversal for figure 3. (0.75)

   = pre: 12,15,25,-2,13,0,3,23,-5,-9

   post : -2,25,0,13,15,-5,-9,23,3,12

   in : 25,-2,15,13,0,12,3,-5,25,-9