Data Structures and Algorithms- Quiz 5

Question 1

2 / 2 pts

What is an AVL tree?

- (•) a tree which is balanced and is a height balanced tree
- ( ) a tree which is unbalanced and is a height balanced tree
- ( ) a tree with three children
- ( ) a tree with atmost 3 children

Question 2

2 / 2 pts

Why we need to a binary tree which is height balanced?

- (•) to avoid formation of skew trees
- ( ) to save memory
- ( ) to attain faster memory access
- ( ) to simplify storing

Question 3

2 / 2 pts

Which of the following statement is correct?

- (•) To restore the AVL property after inserting a element, we start at the insertion point and move towards root of that tree.
- ( ) To restore the AVL property after inserting a element, we start at the root node and move towards end of that tree.
- ( ) Both are correct
- ( ) Both are incorrect

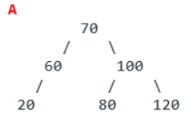
Question 4

2 / 2 pts

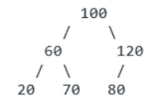
Consider the following AVL tree.

Which of the following is updated AVL tree after insertion of 70

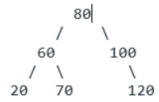
A



B



C



D

- C
- A
- B
- D

Question 5

2 / 2 pts

Find out the maximum height of any AVL-tree with 7 nodes? Consider that the height of a tree with a single node is 0.

- 3
- 2
- 4
- 5