Tut 6 – C++ AVL Tree & Multiway Trees

With the following struct:

Problem 1 *

Construct an AVL tree by inserting one by one elements as follows:
32, 73, 62, 29, 79, 26, 67, 70, 43, 27, 4, 46, 7, 74, 5

Problem 2 *

Remove elements of AVL tree in question 1 step by step:
73, 43, 62, 26, 29, 5

Problem 3 *

Construct a B-tree by inserting one by one elements as follows:
32, 73, 62, 29, 79, 26, 67, 70, 43, 27, 4, 46, 7, 74, 5

Problem 4

Remove   elements   of   B-tree   in   question   3   step   by   step:
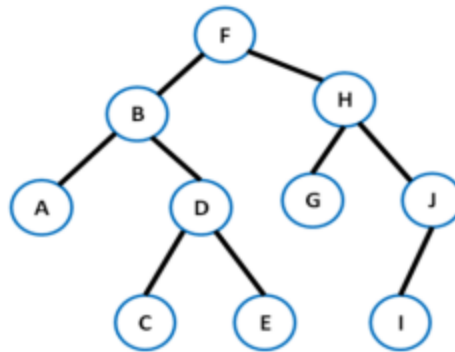73, 43, 62, 26

Problem 5

What is the complexity of operations inserting and deleting one node in AVL, Btree? Compare with same operations in BST.

Problem 6

1. What is the sequence of level-order traversal in the following tree:

2. Given an AVL tree T, is it always possible to build the same tree by a sequence of BST insert and delete operations (with no rotations)?