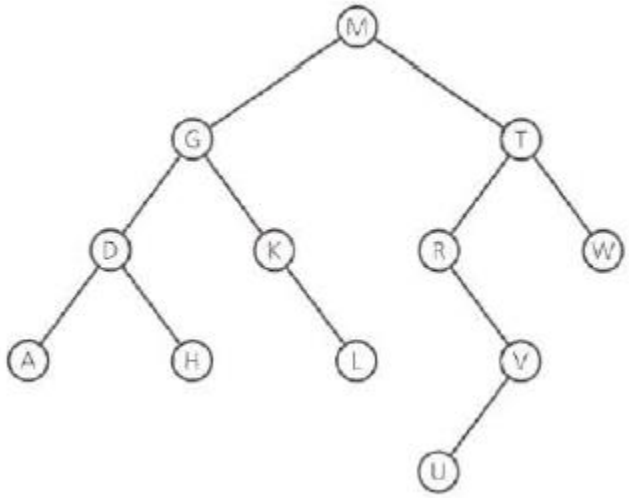
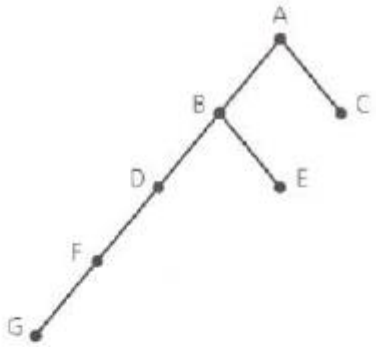
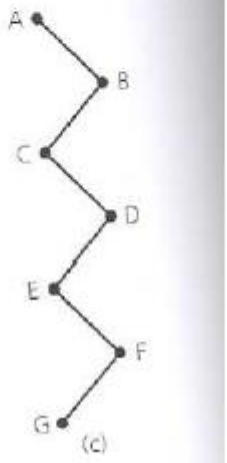
1) What are the preorder, inorder, and postorder traversals of the following trees:



(a)



(b)



(c)

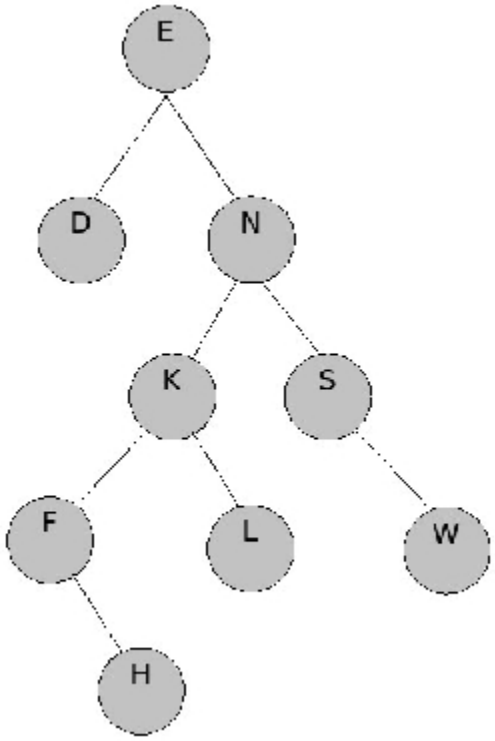
2) Beginning with an empty binary search tree, what BST is formed when the following items are inserted in the order given?
    a. W, T, N, J, E, B, A
    b. W, T, N, A, B, E, J
    c. A, B, W, J, N, T, E

3)
    a. Beginning with an empty binary search tree, what BST is formed when the following items are inserted in the order given? 8, 13, 6, 10, 21, 19

    b. Given a search key of 12, trace the algorithm that searches the binary search tree from part a.

4) Draw a picture of the binary search tree in diagram after the operation below:

remove('E');



5) Given the names of seven people: Sandra, Alfred, Larry, Wilma, David, Nancy, and Tom. Construct an arrangement of these names to be inserted into a binary search tree that will produce a tree where searching for a name will be as efficient as possible. List the ordering you create, and draw a diagram of the resulting tree.

6) Construct an arrangement of the names in problem 1 to be inserted into a binary search tree that will produce a tree where searching for a name will be as INEFFICIENT as possible. List the ordering you create, and draw a diagram of the resulting tree.