

(a) Write down the order of nodes in each of inorder, postorder and preorder traversals of the given tree.

(b) Write a recursive program in C++ to compute the height of any binary tree T:

```
int height(treeNode* T);
```

(Note: the height of this tree is 4.)

(c) What is the maximum possible height of a binary tree with 7 nodes? What is the minimum possible height? State brief reasons. (Write no more than two lines).

(d) State the worst case complexity of your program in (b) for a tree T with N nodes. Use big Oh notation. Give a brief reason for your answer. (Count additions.)

