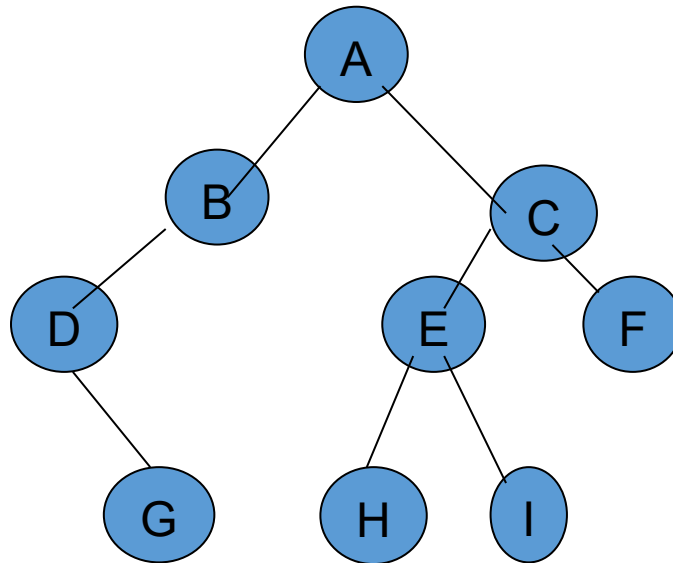


COSC 320 HW 3

Apply the following each tree traversal algorithm to predict the outputs for the tree below and also give the worst, average and best case time complexity analysis for each algorithm.



1. Preorder tree traversal.

Node order of NLR:

Node order of NRL:

Worst case time complexity:

Average case time complexity:

Best case time complexity:

2. Postorder tree traversal.

Node order of LRN:

Node order of RLN:

Worst case time complexity:

Average case time complexity:

Best case time complexity:

3. Inorder tree traversal.

Node order of LRN:

Node order of RLN:

Worst case time complexity:

Average case time complexity:

Best case time complexity:

4. Level order traversal.

Node order:

Worst case time complexity:

Average case time complexity:

Best case time complexity: