North South University

Department of Electrical and Computer Engineering

CSE 225L.05 (Data Structure and Algorithm Lab)

Question 1 (10 marks):

- Write a program to convert an infix expression (standard mathematical notation) into a postfix expression

Input: (a + (b * c)) / d

Output: a b c * + d /

Question 2 (5 marks):

- Write a program to evaluate a postfix expression.
  Input: 2 3 1 * + 9 –
  Output: -4

Question 3 (5 marks):

- Write a recursive function to construct a binary search tree (BST) with the minimum height from a given sequence of integers.

Hint: Sort the sequence (use the inorder traversal). The middle element is the root. Insert it into an empty tree. Now in the same way, recursively build the left subtree and then the right subtree.

Input: 11 9 4 2 7 3 17 0 5 1
Output (Inorder Traversal): 0 1 2 3 4 5 7 9 11 17

To solve these questions, you must use necessary data structure classes from lab manuals provided in Canvas.