**BRAC University (Department of Computer Science and Engineering)**

**CSE 220 | Fall 2024**

**Lab Quiz 5 (Set B)**

**Full Marks: 15 Duration: 30 minutes**

| **Name:** | **ID:** | **Section:** |
| --- | --- | --- |

Write a recursive function leftRightMultiplication() that takes the root of a binary tree as a parameter. The function will multiply the summation of the left subtree of the given root with the summation of the right subtree of the given root. But while calculating summation of a tree, for even level nodes value will be taken as negative value and for odd level nodes positive value will be taken. Consider the Node class for Binary tree already defined with elem, left and right variables. You can use helper functions.

**YOU CAN NOT USE LIST OR DICTIONARY. YOU CAN NOT USE ANY BUILD-IN FUNCTIONS**

| **Sample Input:** | **Sample Output** | **Explanation** |
| --- | --- | --- |
|  | 70 | Summation of left subtree + Summation of right subtree  =(2+(-1\*4)+(-1\*5))\*(3+(-1\*6)+(-1\*7))  =(2-4-5)\*(3-6-7)  =(-7)\*(-10)  =70 |