

## **EAST WEST UNIVERSITY**

## **Department of Computer Science and Engineering B.Sc. in Computer Science and Engineering Program Lab Examination, Spring 2021 Semester**

| Course:     | CSE 207- Data Structures, Section-2                   |
|-------------|---|
| Instructor: | Dr. Maheen Islam, Associate Professor, CSE Department |
| Full Marks: | 30 Marks  |
| Time:       | 1 Hour 20 Minutes                                     |

## Problem-1:

**Write** a program that will construct a BST and print out all of its root-to-leaf paths one per line. First, your program will take inputs from the user and construct the BST, Second, it will print the tree elements using inorder traversal. Finally, it will print out all of its root-to-leaf paths one per line.

| Sample input | Sample Output      |
|--------------|--------------------|
| 50           | Inorder traversal  |
| / \          | 10 20 45 50 70 80  |
| 20 70        | Root-to-leaf paths |
| / \          | 50, 20, 10         |
| 10 45 80     | 50, 20, 45         |
|              | 50, 70, 80         |
|              |                    |