**Assignment-5 (30 points)**

**Binary Search Tree**

**Due date: 10/4/2022**

**Exercise-1: (15 points)**

Develop a BinarySearchtree.py which can perform the following functions:

* Insert node to a tree
* Perform In-order traversal
* Perform Pre-order traversal
* Perform Post-order traversal
* Find a node

**Exercise-2: (15 points)**

Write a function to remove a node from a tree data structure? This function should consider all the three cases: case-1: remove a leaf node, case-2: remove a node with one child and case-3: remove a node with two children.

Perform the time complexity for this function. Briefly explain?