**Tutorial 9**

**Binary Search and AVL Trees**

**Instructions**

1. All tutorial sheets will be posted on the Google Classroom.

2. Students are advised to submit tutorial sheets solutions in classroom.

Q1. Write a program to insert the following elements into a Binary Search Tree and perform the pre-order traversal.

10, 20, 30, 25, 15, 5, 35, 45, 55, 50, 45, 40

Now delete following elements one by one

10, 20, 30, 25, 15, 5, 35

Q2. Write a program to calculate the height of an AVL tree.

Q3. Write a program to construct an AVL tree from given sorted array.

Q4. Write a program to check whether a given BST is AVL or not.

Q5. Write a program to insert the following elements into an AVL Tree and perform the pre-order traversal.

10, 20, 30, 25, 15, 5, 35, 45, 55, 50, 45, 40

Now delete following elements one by one

10, 20, 30, 25, 15, 5, 35