**C Programming Lab Assignment-3**

**(Trees, Graphs, Searching, and Sorting Algorithms)**

**Instructions:**

* *Write C code for following problems in Lab record. Input and output will be in Left side page, right side page will be question and program only.*
* *Do not forget to write name, roll number and section on first page of Lab record.*
* ***Please submit the lab record at the time of final lab practical exams.***

**Section 1: Trees:**

1. Write a C program to print preorder, inorder, and postorder traversal on Binary Tree.
2. Write a C program to create (or insert) and inorder traversal on Binary Search Tree.

**Section 2: Graphs:**

1. Write a C program depth first search (DFS) using array.
2. Write a C program breath first search (BFS) using array.

**Section 3: Searching and Sorting Algorithms:**

1. Write a C program for linear search algorithm.
2. Write a C program for binary search algorithm.
3. Write a C program to display the elements in an ascending order using bubble sort algorithm.
4. Write a C program to display the elements in an ascending order using selection sort algorithm.
5. Write a C program to display the elements in an ascending order using insertion sort algorithm.
6. Write a C program to display the elements in an ascending order using merge sort algorithm.