# EC2022E Data Structures
# Winter 2024-25
# Assignment 4

## Part A: Questions on Trees:

**All students should have different trees.** Trees should have d=3 at least.

1. Take a binary tree and do tree traversals
2. Construct a BST and do the following on it:
   a) Insert
   b) Delete
   c) Search
   d) Max
   e) Min
   f) Predecessor
   g) Successor

## Part B: Questions on GRAPHS

3. Implement the following graph algorithms

   i) BFS

   ii) DFS

   iii) PRIM'S ALGORITHM

   iv) KRUSKAL'S ALGORITHM

   v) DJIKSTRA'S ALGORITHM

- You can use the Standard Template library for data structures like stack, queue, priority heap and anything else, but the use of it must be clear.
- You may use different graphs for different algorithms. But the same graph should not be used by anyone else. Your graph/graphs must be unique and have at least 8 vertices.