Data Structures and Algorithms - LAB 12 - 23.11.2022

Evaluation

Observation – 5 marks

Execution – 15 marks

Spot – 5 marks

Spot

1. Write time and space complexity of kruskal and prims algorithm
2. Can kruskal algorithm produce more than one MST without any changes in the code?
3. Which scenario, kruskal's algorithm will result in best time complexity?
4. In a graph having V vertices and E edges, what is the smallest possible edge count of a Minimum Spanning Tree?
5. How do we detect whether one edge(with V1 and V2 as vertices on both the ends) is a part of a cycle in the graph?
6. Which edge gets judged if it should or shouldn't be in MST after n iterations?
7. When do we add an edge to MST while running Kruskal's ?
8. MST is constructed from decreasing weighted edges. justify.
9. How many edges are present in MST after k iterations?
10. For dense graphs, which data structure can be used to implement Prim's Algorithm?