ADSA-2022 Lab Assignment – 10 **Date: 01-11-2022**

Instructions

1. This is an individual assignment.

2. Your code must completely be your own. You are not allowed to take guidance from any general-purpose code or problem specific code meant to solve these or related problems. Remember, it is easy to detect this kind of plagiarism.

3. All the PROBLEMS are COMPULSORY.

4. **Write only a single main function**. You can call the required functions from the main function.

4. Name the file as follows: S2021xxxxx_A10.c

5. DO NOT zip. **Upload a single .c file** directly to your submission in the common Google classroom.

	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
A	0	4	0	0	0	0	0	8	0
B	4	0	8	0	0	0	0	11	0
C	0	8	0	7	0	4	0	0	2
D	0	0	7	0	9	14	0	0	0
E	0	0	0	9	0	10	0	0	0
F	0	0	4	14	10	0	2	0	0
G	0	0	0	0	0	2	0	1	6
H	8	11	0	0	0	0	1	0	7
I	0	0	2	0	0	0	6	7	0

Question 1: [4 points]

For the above given adjacency matrix of Graph G1, use Prim's algorithm to find the minimum spanning tree and print the MST and its cost.

Question 2: [4 points]

For the above given adjacency matrix of Graph G1, use Kruskal's algorithm to find the minimum spanning tree and print the MST and its cost.

Question 3: [2 points]

Write a function to List the sequence of steps taken while solving question 1 and 2, e.g. "edge (c,d) rejected because……." or "edge (e,f) accepted". Mention the proper reason for rejecting the edges.