

Metropolitan University, Sylhet
Department of Computer Science and Engineering

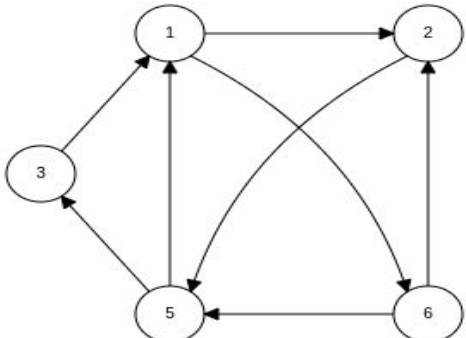
Autumn Term Final Examination – 2020

Program: B.Sc. in CSE; Course: CSE 133: Data Structure

Time: 3.5 Hours

Marks: 40

[All questions are mandatory.]

1	Split your ID. Show simulation to sort the split array using the insertion sort algorithm.	10
2	Write the code to exchange the elements of the diagonals of a square matrix. Example input : [1 2 3 4 5 6 7 8 9] Output : [3 2 1 4 5 6 9 8 7]	10
3	Find the second least number of an array using recursion.	10
4	Show the simulation of BFS and DFS on the following graph. Suppose the start node is 1. 	10