



United International University

Department of Computer Science and Engineering

CSE 2216/CSI 218 (B): Data Structure Laboratory/Data Structure and Algorithms I Laboratory

Trimester: Fall 2022

Final (Implementation), Total Marks: **15**, Total Time: **40 minutes**

Question 1: Alice along with her family members moving to a new country. Alice wants to live in a city in that country from where she can visit all the other cities. Alice can visit any other city from the city she lives in if there is a direct or indirect path(s) between the cities. Alice has prepared a shortlist of cities where she wants to live. Alice needs your help on this.

Input: You are given the number of cities **V** in the country where Alice wants to live and **E** roads (**s**, **d**), those that state that there is a one-directional path from **s** to **d**.

Then, you are given the number of cities C in the shortlist followed by the name (0<= city name <= V-1) of the city.

Output: You need to answer whether there is any city on the shortlist of Alice from which she can visit all other cities or not.

Sample Input 1	Sample Output 1
5 6 0 1 0 2 0 4 1 2 3 0 0 4 4 1 2 3 4	Exist!

Sample Input 2	Sample Output 2
5 4 0 1 1 2 2 0 3 0 2 4 0	Not Exist!