

Assignment 5

Computer Systems Lab

October 1, 2020

Date: October 1, 2020

Time: 2:30 P.M. – 5:15 P.M.

The *distance* between any two vertices u and v in an undirected unweighted graph is defined as the minimum number of edges that are required to be traversed to reach v from u and vice versa. Given an undirected unweighted graph $G = (V, E)$, a non-zero positive integer k , and two different vertices x and y , write a C/C++ program that will print all the vertices that are exactly k distance apart from both the vertices x and y . If no such vertex is found, then print -1.

Input:

V = 8

E = 12

0 1

1 2

1 4

2 4

0 3

3 6

2 5

2 6

5 7

5 6

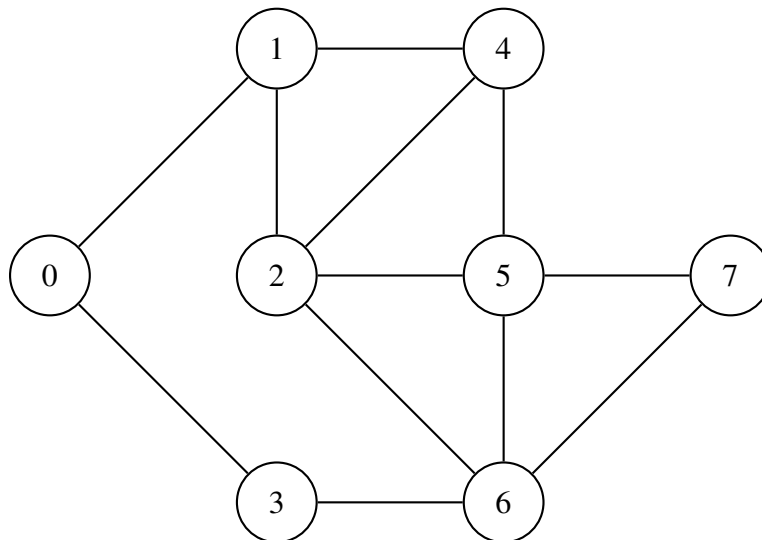
6 7

4 5

k = 2

x = 0

y = 7



Output:

2 4

Submission Instruction:

File Name: A5_RollNo.c/cpp

Email to: joy@iitbbs.ac.in with **subject line:** A5_RollNo