Indian Institute of Engineering Science and Technology, Shibpur

Department of Information Technology

Algorithms Lab

6th Semester, 2021

Assignment 4

1. Let us consider a graph G=(V,E, w), where w: E→ R is a weight function. Find out shortest paths of all vertices reachable from a given vertex s, applying Bellman-Ford algorithm. Use adjacency list to represent the graph.

2. Design an algorithm to find out longest path between two vertices of the above graph. Show the time complexity of your algorithm.