

Shubham Sanjay Jain

CWID: 10456815

Stevens Institute of Technology

Master of Science in Computer Science

Submitted to: Prof. Iraklis Tsekourakis

CS 590 Algorithms

Solution: Assignment 6

1.

a. $n(n-1)$ is the maximum allowed edges for a non cyclic random path $V_0 \dots V_n$

2.

I would create a function that would check if the created graph has a negative weight cycle or not if yes then again random graph will be called till we finally get random graph with no negative weighted cycles.

3.

Running time for Bellman Ford Algorithm $\rightarrow O(VE)$

Where V is no. of Vertices and E is no. of Edges.