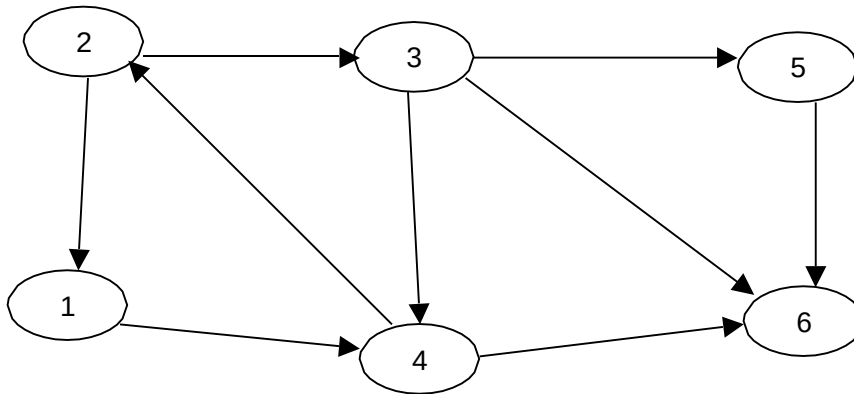


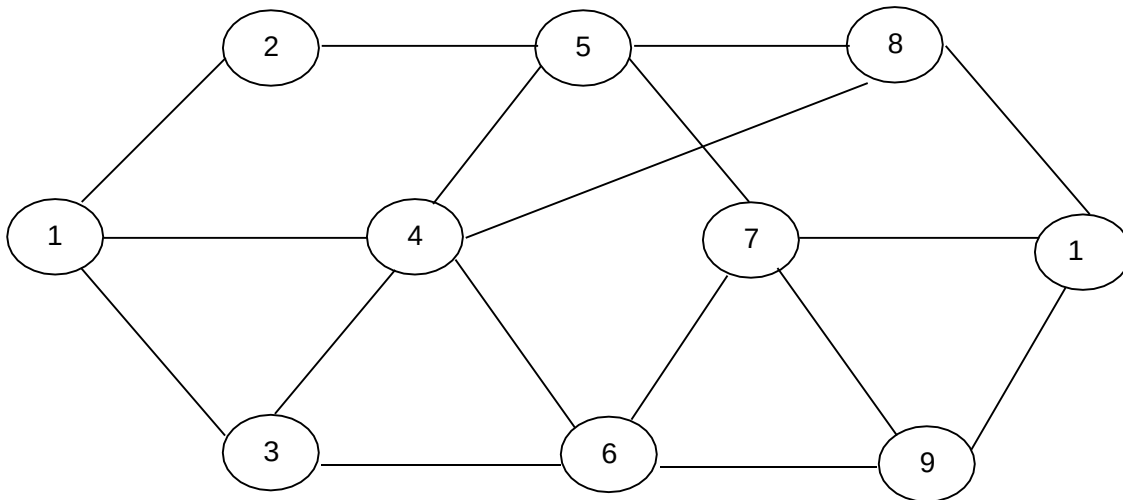
IE 479-HW5

Question 1: Solve the Chinese Postman problem (arc routing problem) on the following networks. Assume that all arc costs are 1. Provide the routing structure clearly. Explain your reasoning.

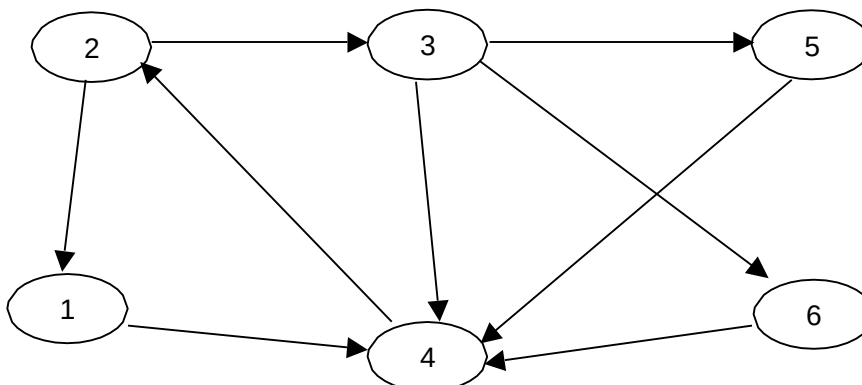
a)



b)



c)



Question 2: Construct a transportation network of 15 nodes. Let $Q=20$, $q_i=5$ and $m=4$. Assume all arc costs are 1. Let $T=5$. Solve the distance constrained CVRP with

- a) Savings
- b) Sweep
- c) Cluster first

Which one gives the best answer?

- d) Try to improve your solution by inter route and intra route moves

Question 3: Solve the following assignment problem with the following disutility matrix.

8	3	5	2	4
4	5	3	6	7
6	2	1	3	5
3	7	2	4	3
5	2	6	3	4