KFUPM – CCSE - COMPUTER ENGINEERING DEPARTMENT

CSE 642 – Computer Systems Performance (Take home quiz 4)

Due Mon Dec 21st, 2009

Student Name:
Student Number:

1) (**10 points**) It is required to rework Example 4.5 in the textbook.

a) Draw the corresponding network of queues (topology) showing the involved nodes and feedforward and feedback paths with the proper routing probabilities.

b)Write the traffic equation in a matrix form and solve for the flows Λ_i's.

c) Compute the average message delay in this network.

Students must show all calculations and solution details. Final answers only are not acceptable.

Hint – You may want to check the errata sheet for typos in the problem.