**CSCE 654 Project**

**Part III – Due 24 Apr 19**

**Problem Description:** Implement a six-node network. End-to-end delay and routing accuracy are important performance metrics that need to be examined. The node configuration is shown below. For this configuration, Node A generates all the traffic while nodes B, C, D, E, and F serve as sinks for the data. The propagation delays and traffic loads are as follows:

 

In preparation for Part IV of the project, you will have to inspect the packets at each receiving node to determine whether and how to forward. Nodes must have the ability to Queue packets when necessary.

Service time of queue A is exponentially distributed with a mean of 0.05 seconds. Each of the other queues have an exponentially distributed service time with a mean 0.1 seconds. Arrivals to node A are assumed to be Poisson distributed. Two different arrival rates will be analyzed;

a) 15 packets per second

b) 17 packets per second

Performance metrics should be gathered for each of these loading levels. In addition, you may wish to try different random seeds to ensure that results are independent of the seed.

**Write-up:** Your write-up should include delay plots showing the system response along with supporting graphs/plots showing the accuracy of the routing scheme you implemented.