Computer Networks Fall 2018
Quiz – 5 Date: 12-12-2018
Roll no: _____

Q1: Let's consider the operation of a learning switch in the context of a network in which 6 nodes labeled A through F are connected into an Ethernet switch through star topology. Consider MAC and IP addresses of the nodes denoted by MAC-(node label) and IP-(node label). For example, node A in the network will have mac address and ip address denoted as MAC-A and IP-A respectively.

Suppose the following events occur in the network

1. B sends a frame to E
2. E replies with a frame to B
3. A sends a frame to B
4. B replies with a frame to A.

The switch table and the ARP tables of all the nodes are initially empty.

1. Show the state of the switch table after the Event1 and Event4 above.

Switch Table After Event1

Switch Table After Event4

2. Show the ARP tables of each of the nodes of the network.

ARP table for node A

ARP table for node B

ARP table for node C

ARP table for node D

ARP table for node E

ARP table for node F