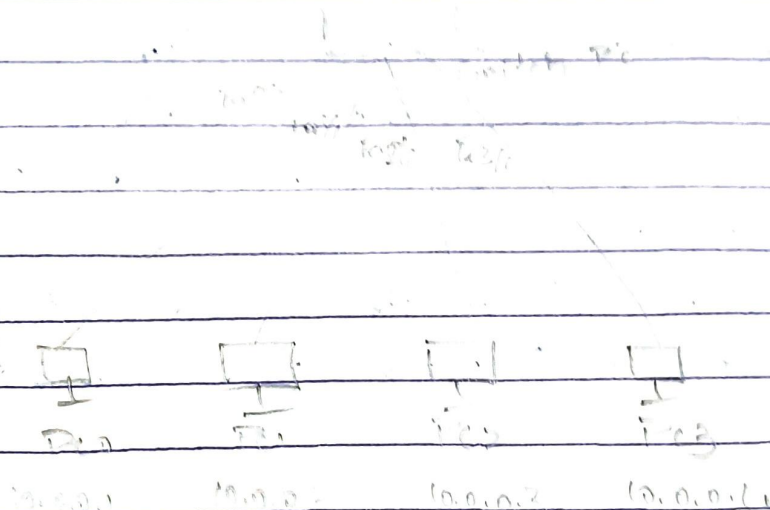


Experiment - 12

Objective

to construct simple LAN & understand the concept & operation of Address Resolution Protocol (ARP)

Topology



Procedure:

- Place 3 end devices, a server and a switch and connect the PC and the server to the switch using Copper Straight wires.
- Use the inspect tool to click on a PC to view the ARP table
- The same can also be viewed in the command prompt by using 'arp-a'
- Go to CLI of the switch and do 'show mac address'
- Similarly obtain ARP table of the server & other end devices
- Enter the simulation mode & click on 'capture' by selecting PC1 & PC2 for simple 'PDU'

Observation

- Initially, the ARP tables of all end devices are observed to be empty
- The MAC address table is also found to be empty
- When the capture button is clicked it is found that ARP table is updated in PC2 with the IP address of PC1 (10.0.0.2)
- Once the acknowledgement is obtained the ARP table of PC1 is updated with the IP address of PC2 (10.0.0.3)
- The event list in the simulation panel shows the corresponding Protocol used during the communication