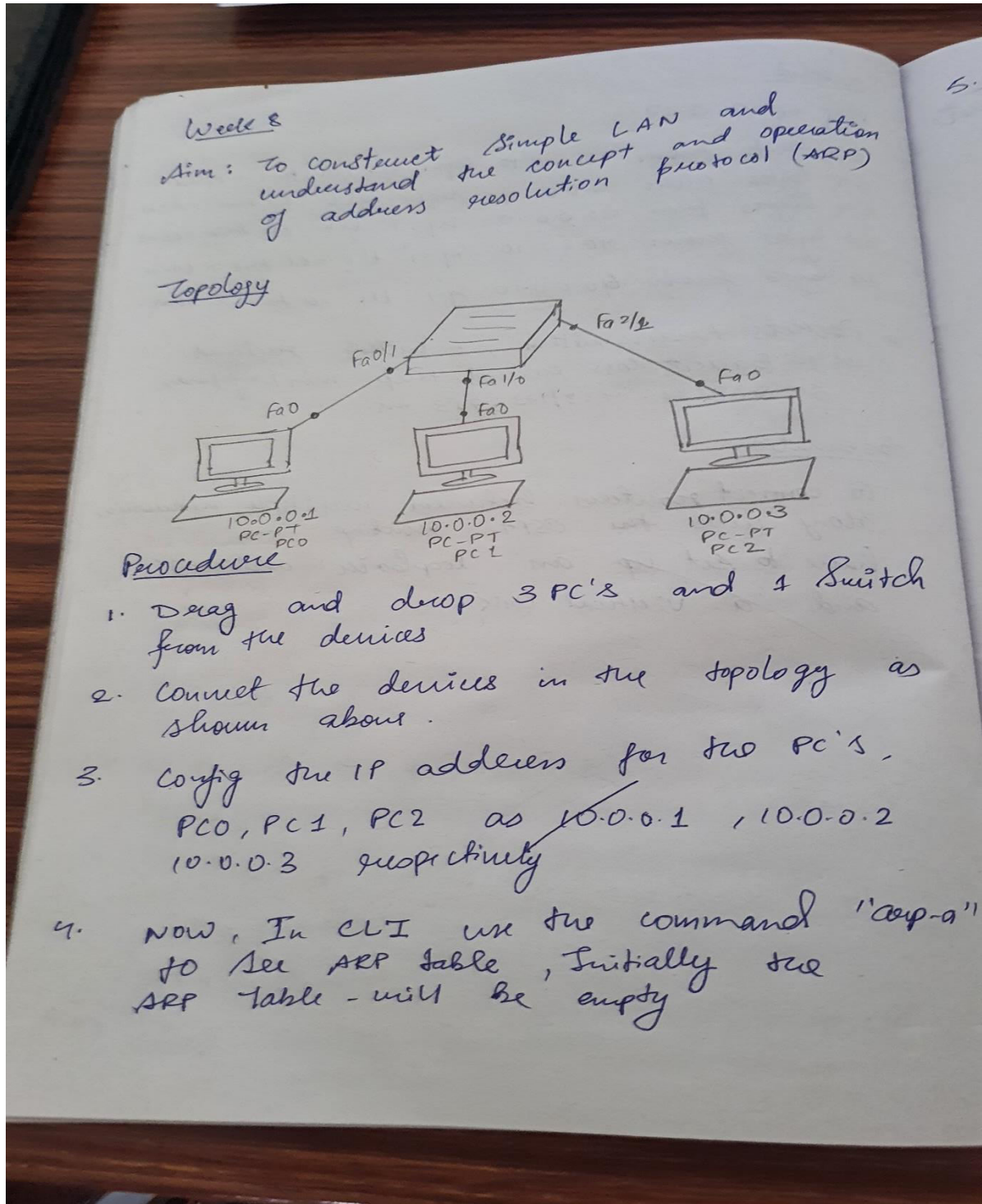


CN LAB 8

AIM: To construct simple LAN and understand the concept and operation of Address Resolution Protocol (ARP).

OBSERVATION:



5.) Also in CLI of switch the command show mac address table can be given on every transaction to see how the switch learns from transactions and build the address table

6.) Now ping from one PC to another PC

Observation / Result

PC > Ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data

Reply from 10.0.0.3 bytes = 32 time = 0ms TTL = 128

Reply from 10.0.0.3 bytes = 32 time = 0ms TTL = 128

Reply from 10.0.0.3 bytes = 32 time = 0ms TTL = 128

Reply from 10.0.0.3 bytes = 32 time = 0ms TTL = 128

Ping Statistics for 10.0.0.3

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)

Approximate round trip times in milliseconds

Minimum = 0ms, Maximum = 0ms, Average = 0ms

Ph
12/2/23

SCREENSHOTS:

The screenshots show the Cisco Packet Tracer Student interface. The top screenshot displays the initial network configuration with three ARP tables:

- ARP Table for PC3:**

| IP Address | Hardware Address | Interface |
|------------|------------------|---------------|
| 10.0.1 | 0001.C9A4.3457 | FastEthernet0 |
- ARP Table for Server:**

| IP Address | Hardware Address | Interface |
|------------|------------------|---------------|
| 10.0.2 | 0000.D15A.5844 | FastEthernet0 |
- ARP Table for PC1:**

| IP Address | Hardware Address | Interface |
|------------|------------------|---------------|
| 10.0.4 | 0001.6A40.8ECB | FastEthernet0 |

The bottom screenshot shows the simulation running at 00:10:04.668. The ARP table for PC1 has been updated with a new entry for the Server:

- ARP Table for PC1:**

| IP Address | Hardware Address | Interface |
|------------|------------------|---------------|
| 10.0.4 | 0001.6A40.8ECB | FastEthernet0 |
| 10.0.2 | 0000.D15A.5844 | FastEthernet0 |

The Event List on the right shows the following events:

| Time(sec) | Last Device | At Device | Type | Info |
|-----------|-------------|-----------|------|------|
| 0.000 | PC3 | PC3 | ICMP | |
| 0.001 | PC3 | Switch1 | ICMP | |
| 0.002 | Switch1 | Server0 | ICMP | |
| 0.003 | Server0 | Switch1 | ICMP | |
| 0.004 | Switch1 | PC3 | ICMP | |

