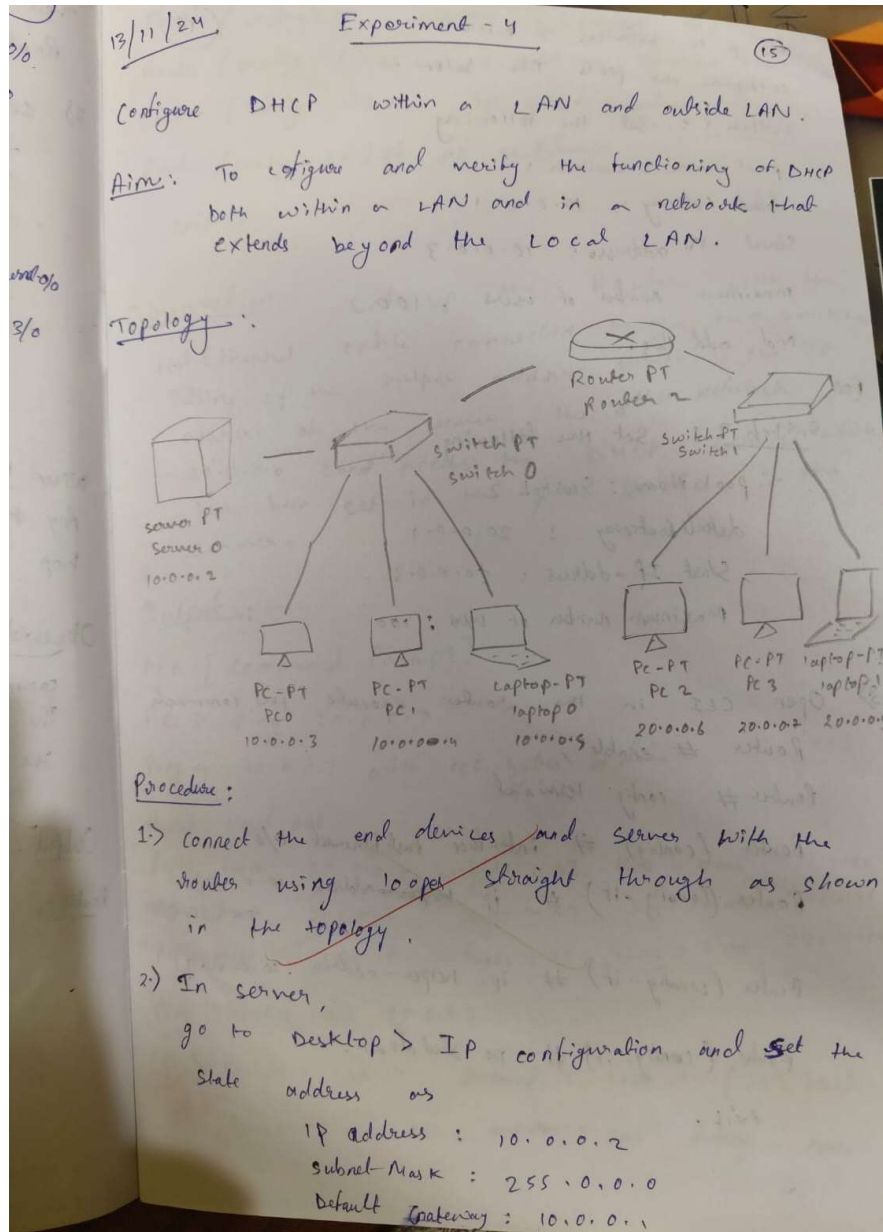


Program 5

Aim: Configure DHCP within a LAN and outside LAN.

Topology , Procedure and Observation:



Then go to Services > DHCP
configure the pools like below.

Switch 1 : Set the following

pool name : switch 1

default gateway : 10.0.0.1

Start IP address : 10.0.0.3

maximum number of users : 100

and add this.

For,

Switch 2 : Set the following

pool Name : Switch 2

default gateway : 20.0.0.1

Start IP address : 20.0.0.3

Maximum number of users : 100

3) Open CLI in the router, execute the commands

Router # enable,

Router # config terminal

Router (config) # interface FastEthernet 0/0

Router (config-if) # ip ~~helper~~ address 10.0.0.1
255.0.0.0

Router (config-if) # ip helper-address 10.0.0.2

Router (config-if) # no shutdown.

exit.

```

Router (config) # interface fast Ethernet 1/0
Router (config-if) # ip address 20.0.0.1 255.0.0.0
Router (config-if) # ip helper-address 10.0.0.2
Router (config-if) # no shutdown
exit

```

Observation: Set up the Router with the fast Ethernet cable connected to the two switches. Setting up the helper address which is the IP address of the server, the other network 20.0.0.0 can access the DHCP service which has been set in the pool service in the server.

Output:

PC0: [command prompt]

PC > ping 20.0.0.7

Pinging 20.0.0.7 with 32 bytes of data.

Request timed out.

Reply from 20.0.0.7 : ~~byte = 32~~ time = 0 ms TTL = 127

Reply from 20.0.0.7 : ~~byte = 32~~ time = 0 ms TTL = 127

Reply from 20.0.0.7 : ~~byte = 32~~ time = 2 ms TTL = 12

Ping Statistics for 20.0.0.7

~~2/4/24~~ ~~2/4/24~~ ~~2/4/24~~ Packets: sent = 4, received = 3, lost = 1 (25% loss)

Minimum = 0 ms, Maximum = 2 ms, Average = 0 ms

Screen Shots:

