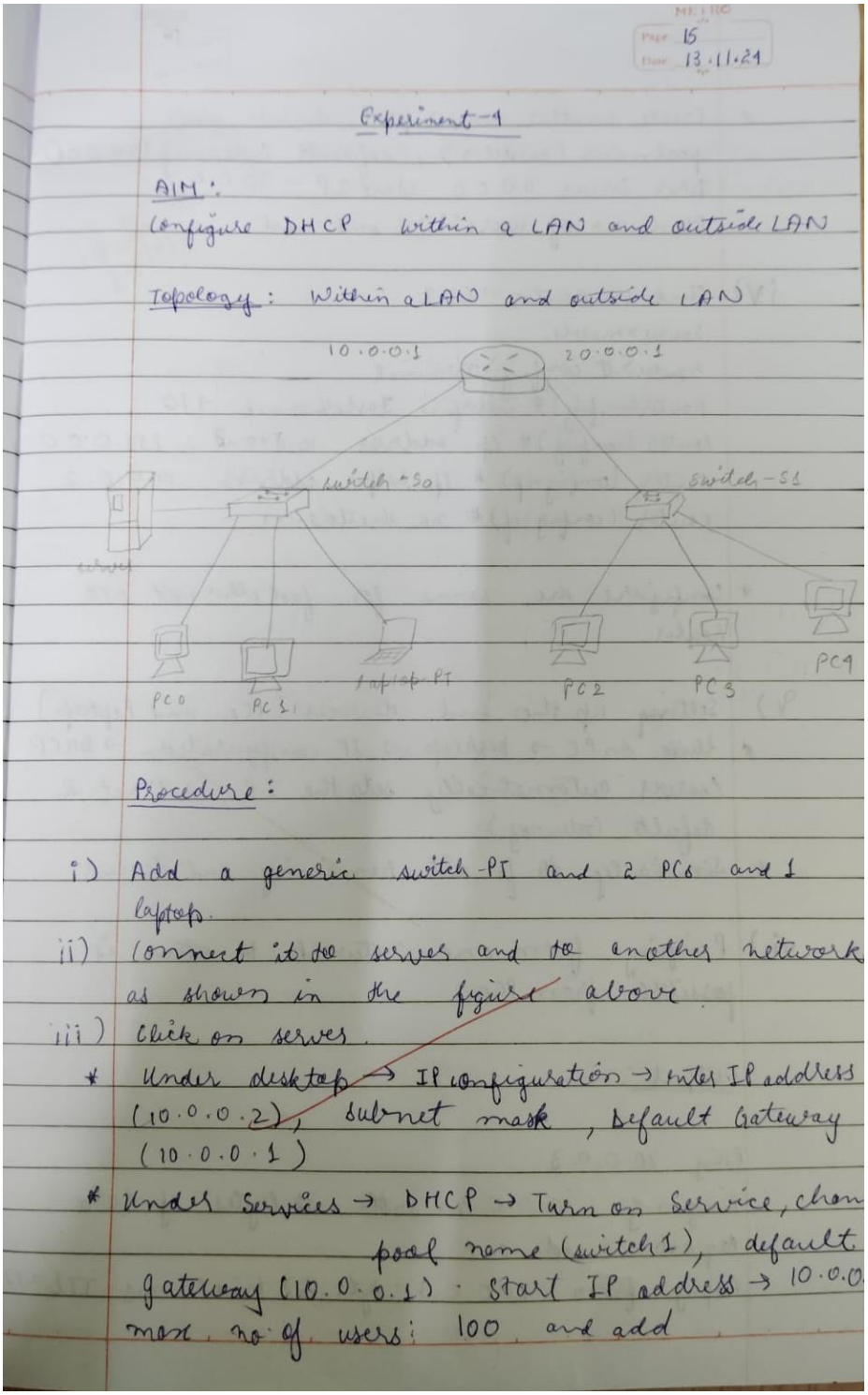
Program 5

Aim: Configure DHCP within a LAN and outside LAN.

Topology , Procedure and Observation:



Page 15
Date 13.11.21

Experiment-1

AIM:
Configure DHCP within a LAN and outside LAN

Topology: Within a LAN and outside LAN

Procedure:

i) Add a generic switch-PT and 2 PCs and 1 laptop.

ii) Connect it to servers and to another network as shown in the figure above.

iii) Click on servers.

* Under desktop → IP configuration → enter IP address (10.0.0.2), subnet mask, default Gateway (10.0.0.1)

* Under Services → DHCP → Turn on Service, chan pool name (switch1), default gateway (10.0.0.1). start IP address → 10.0.0 max. no. of users: 100 and add

* Create another server pool
poolname (switch2), default Gateway (20.0.0.
DNS Server 0.0.0.0 start IP - 20.0.0.3
Max no of users: 100 and add.

iv) Click on Router → CLI
Router> enable
Router# config terminal
Router(config)# interface Fastethernet 1/0
Router(config)# ip address 10.0.0.3 255.0.0.0
Router(config-if)# ip helper address 10.0.0.2
Router(config-if)# no shutdown

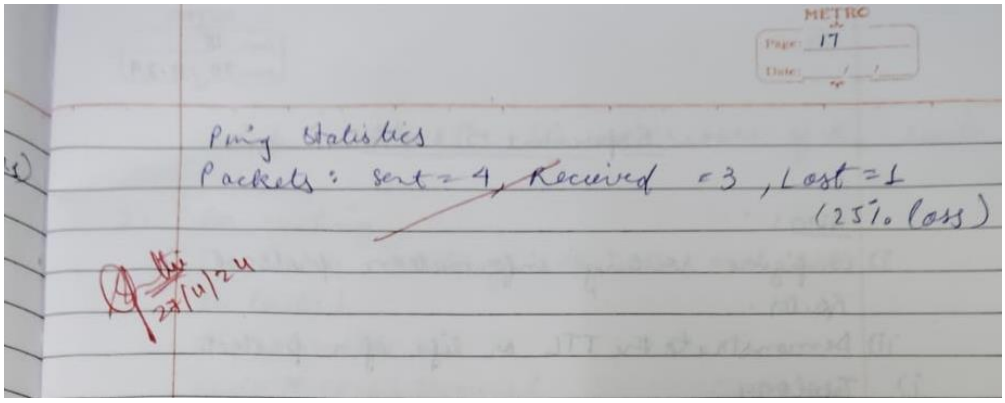
* Configure the same for fastethernet 0/0 Router.

v) Setting up the end devices (PCs and laptop)
* Click on PC → Desktop → IP configuration → DHCP (server automatically sets the IP, subnet & default Gateway)
* Similarly do for all remaining end devices.

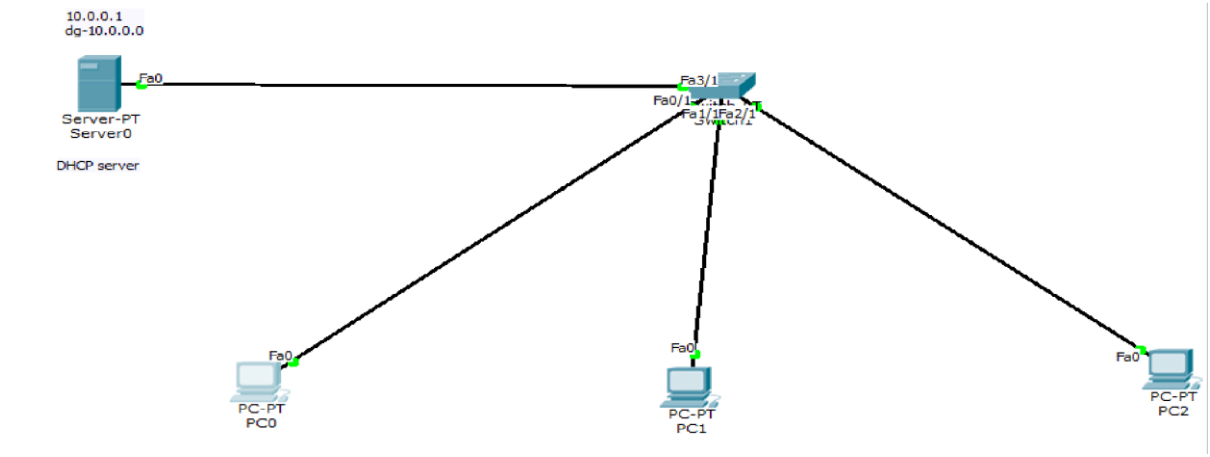
vi) Pinging from one network to other is possible from PC0.

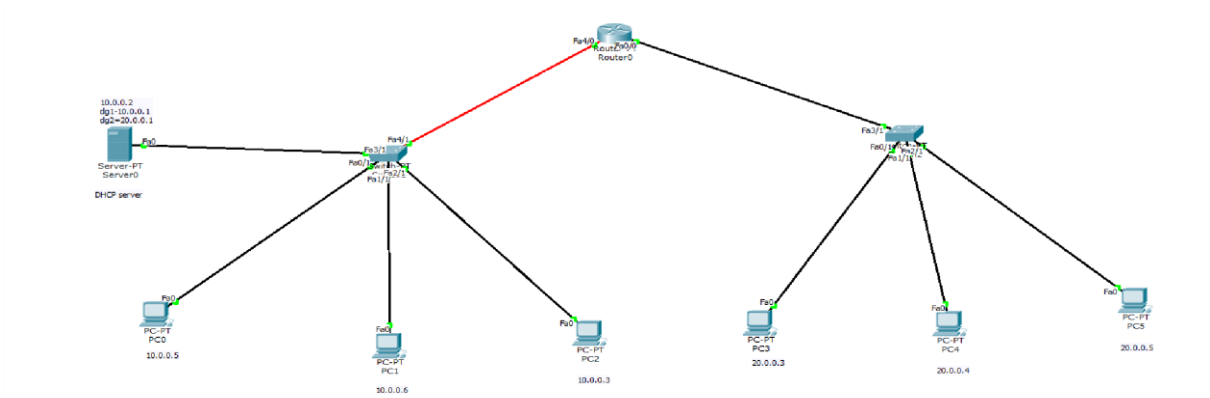
Output:

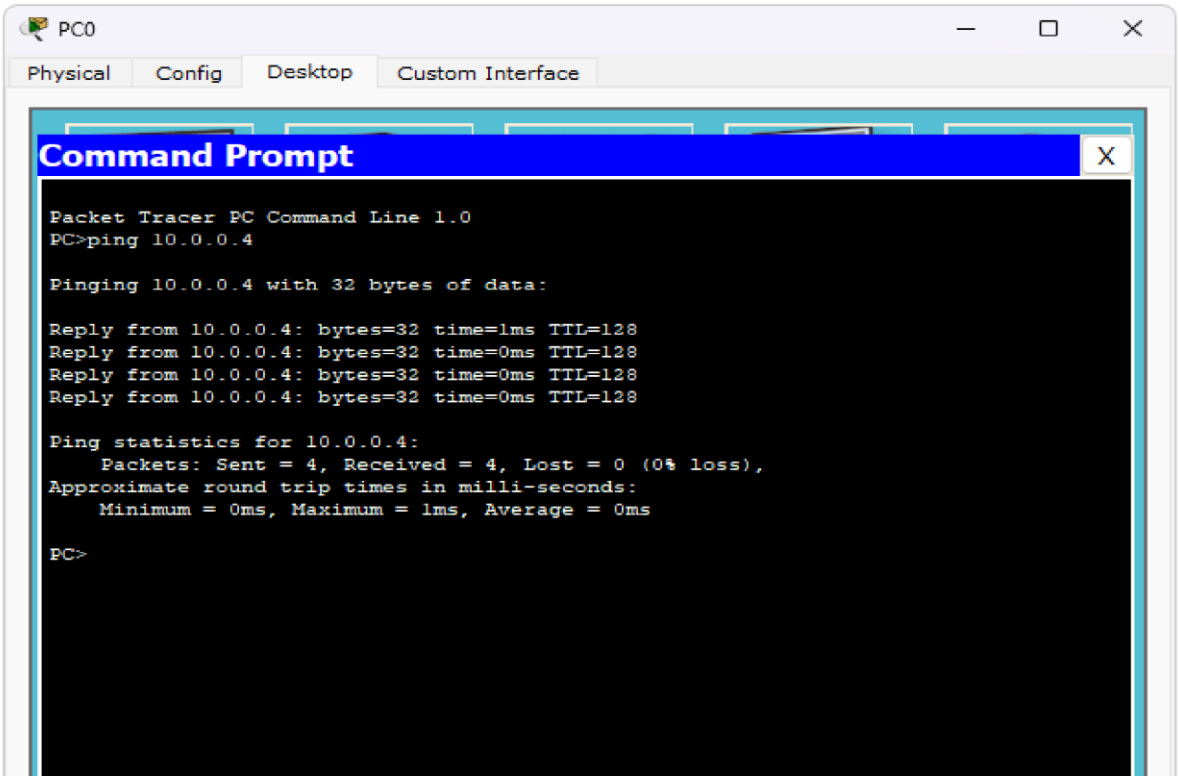
Ping 20.0.0.3
Pinging 20.0.0.3 with 32 bytes of data.
Request timed out
Reply from 200.0.3: bytes: 32 time: 1 ms TTL=12



Screen Shots:






PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.4
Pinging 10.0.0.4 with 32 bytes of data:
Reply from 10.0.0.4: bytes=32 time=1ms TTL=128
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128
Ping statistics for 10.0.0.4:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
PC>