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Computer Networks Lab

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MCA Sec-C

SEM-2

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Que 1 = There is an organization A with multiple departments. Design a network for the HR

department and the size of the department is 10 users. Also, show the communication between user number 1 and user number 5 of the network.

Ans =

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MID Term Practical Exam of Computer Networking.

Q1 \Rightarrow * Problem Statement \Rightarrow There is an organization

A with multiple departments. design a network for the HR department and size of the department is 10 users. Also show the communications between user number 1 and user number 5 of the network.

* Objective description \Rightarrow We need to create a Virtual LAN environment in Cisco Packet Tracer that will show communication between 2 users.

* Steps to perform

1. We will place notes first :-
Organization A, HR department and user 1 to user 10.
2. Add router and switch and connect them with cable.

3. Add 10 machines named PC0 to PC9 and connect all machine to switch.

4. Assign IP address to every machine.

5. We had assigned IP as follows:

PC0 — 192.168.1.1

PC4 — 192.168.1.5

We are assigning only 2 IP's because we need to show communication between user 1 and user 5.

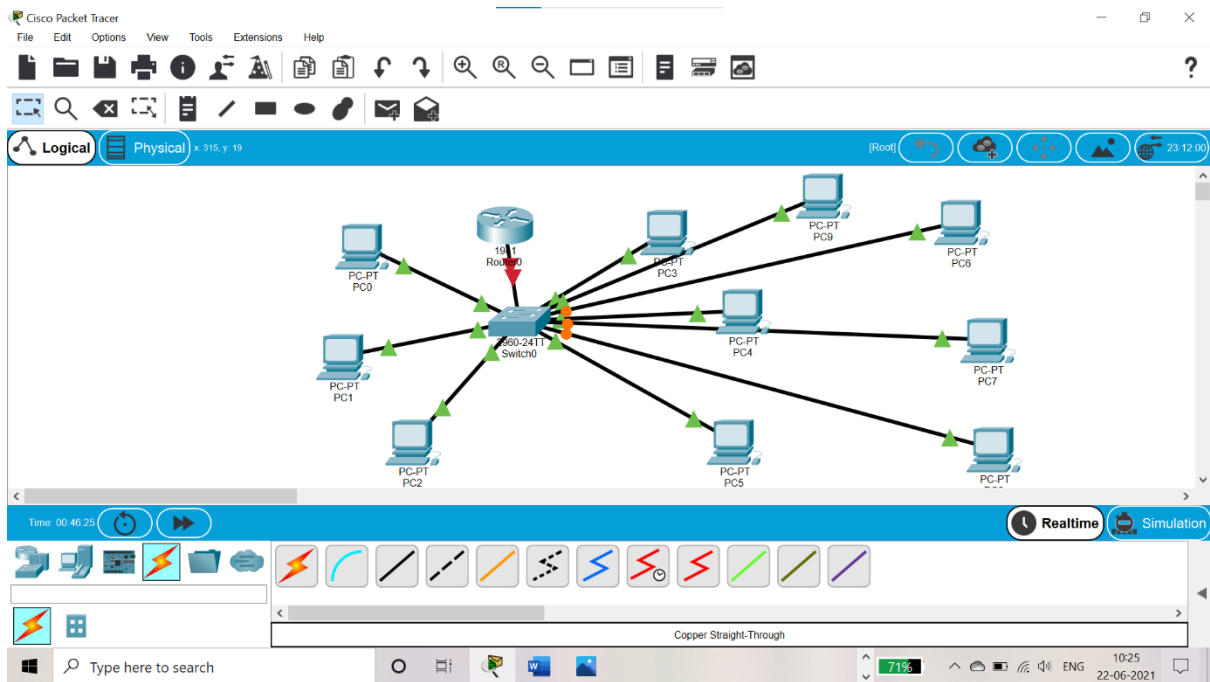
6. Now there are 2 ways to verify the connection between 2 users.

(a). By pinging other system IP.

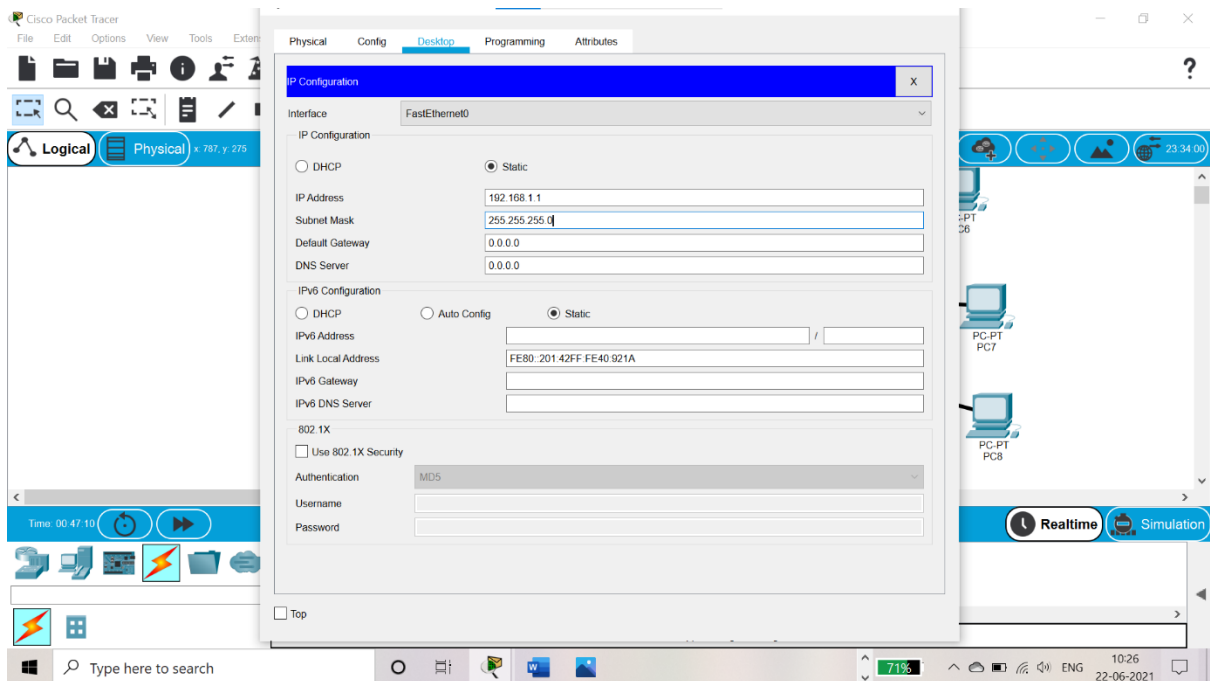
(b). By sending PDU packet from 1 system to another.

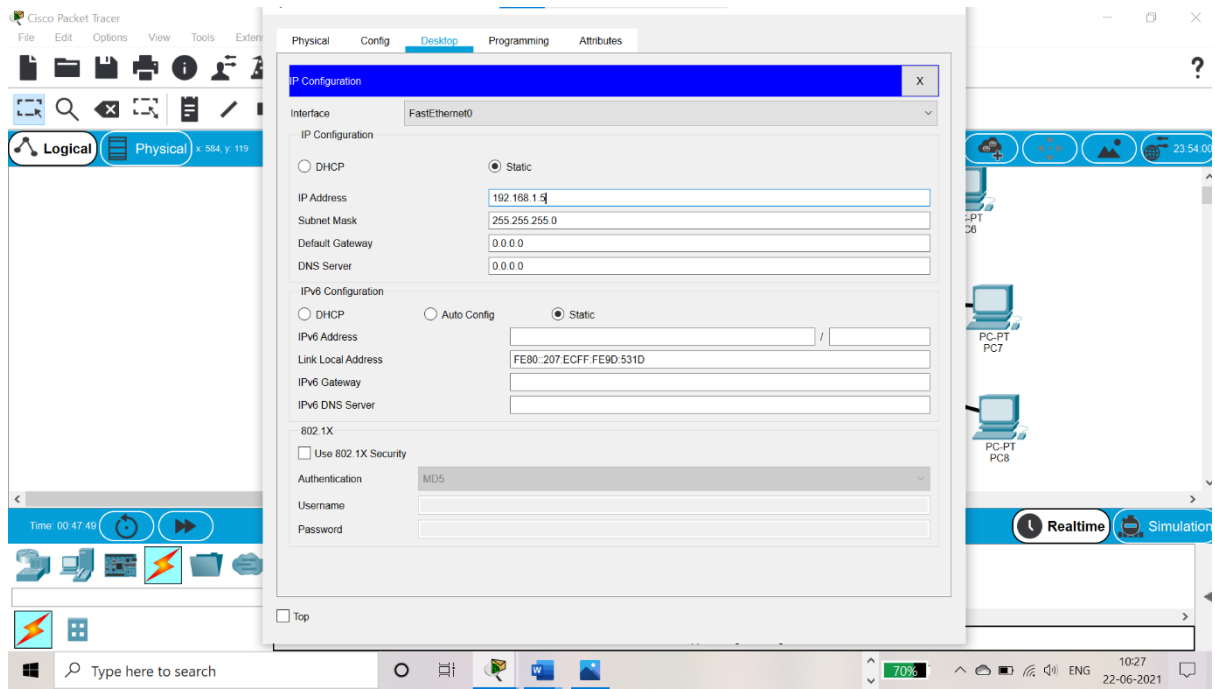
We had performed both as shown in the screenshots below:

7. We can see the connection is successful and we are able to communicate between user 1 and users of HR Department.



IP Address Assign





Que 2 = There are two organizations in a city named GEU and GEHU, design a network between the SOC department of GEU and GEHU. Also, show the communication between user number 1 of GEU and user number 2 of GEHU.

Ans =

Q2 ⇒ * Problem Statement ⇒ There are two organizations in a city named GEU and GEHU design a network between the SOC department of GEU and GEHU. Also show the communication between user number 1 of GEU and user number 2 of GEHU.

* Objective Description : We will create a Virtual LAN environment in CISCO Packet Tracer that will connect 2 users of different departments and connection will be established.

* Steps to Perform :

(a). We will place nodes first :-

- 2 organizations named GEU and GEHU
- Soc Department.
- User 1 and User 2.

(b). We will place 2 routers and 2 switches, Router 0, Router 1, Switch 0, Switch 1.

(c). Connect both routers with serial DTE wire.

(d). Connect switch and ~~return~~ router with normal wire.

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(e) Add 2 System or 2 Users in each organization named user no 1 and user no 2.

(f) Assign IP address to all 9 systems in both departments.

(g) We have assigned following IP address to 2 System.

IP of GENU User 1 : 192.168.10.3

IP of GENU User 2 : 192.168.20.3

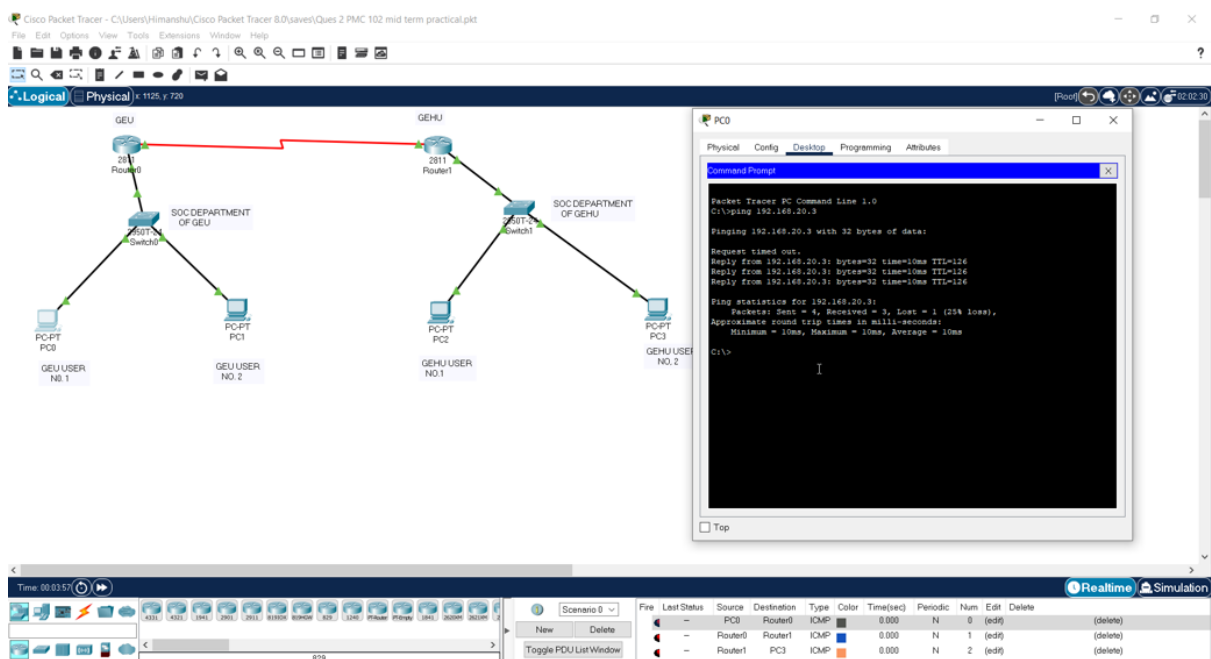
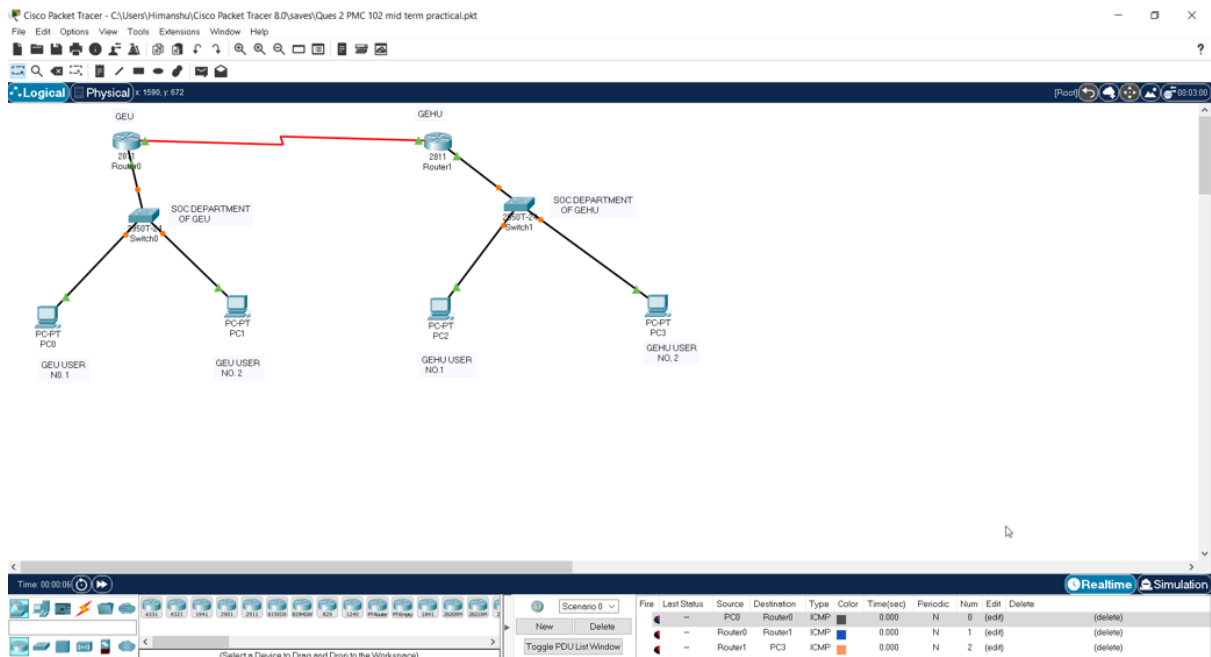
(h) Now again there are 2 ways to verify communication between 2 users.

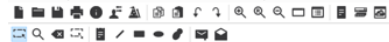
→ Pinging other user IP

→ Sending PDU Packet from user 1 to user 2.

(i) ~~We~~ We can see now user 1 and user 2 connected. We are able to communicate between them via various methods.

Amir





Logical Physical x 1250, y 644

