CSE3003

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Lab 4

Experiment : Configure network using 2 routers and 2 switches. Software required : Cisco Packet Tracer.

Switches : Switches are networking devices operating at layer 2 or a data link layer of the OSI model. They connect devices in a network and use packet switching to send, receive or forward data packets or data frames over the network.
A switch has many ports, to which computers are plugged in.

Routers : Guide and direct network data, using packets that contain various kinds of data—such as files, communications, and simple transmissions like web interactions. The data packets have several layers, or sections, one of which carries identifying information
such as sender, data type, size, and most importantly, the destination IP (Internet protocol) address. The router reads this layer, prioritizes the data, and chooses the best route to use for each transmission.

Steps :
Step 1: Open Cisco Packet Tracer and Select Networking Device Menu.

Step 2: Select two PT switches and place it in the drawing area.

Step 3: Choose PC from End Devices .

Step 4: Draw End Devices on the Drawing Area.

Step 5: Choose Connecting Cable for Device Connections..

Step 6: Connecting some Devices to first Switch and some to second switch.

Step 7: Now select Networking device menu and select two routers.

Step 8: Connect the one switch to one Router and other switch to other Router. Using the connecting wire.

Step 9: Connect the 2 Routers Using Connecting wire. If It is Unable to Connect Click on the Router and in Physical Drag WIC-1T and Put it and then on .Now Connect the

Routers and Set the Configuration.

Step 10: Now for each PC Open Desktop Menu and Select IP Configuration Settings.

Step 11: Configure IP Address, Default Gateway and Subnet Mask. (I have configured:
For PC connected to first switch
IPv4 address: 192.168.2.7 (Change the IP address for all devices as 2.7/2.8/2.9....)
Subnet Mask: 255.255.255.0 (Same for all the devices)
Default Gateway: 192.168.2.3)
For PC connected to another switch
IPv4 address: 192.168.3.7 (Change the IP address for all devices as 3.7/3.8/3.9....)
Subnet Mask: 255.255.255.0 (Same for all the devices)
Default Gateway: 192.168.3.3)

Step 12: Select Simple PDU and Drag it to the devices that you want to connect.

Step 13: Now click on Simulation option in the bottom right corner and then click on the play
button. Output :
Send Message from PC1 to PC4

OUTPUT: