INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, NAGPUR,
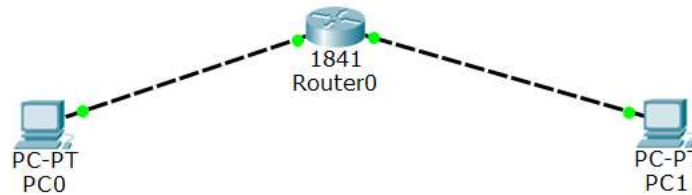## Department of Computer Science & Engineering

Lab Exercise No. 2

Objective: To demonstrate and configure a simple router for connecting two hosts using different gateways.

Steps to be followed on Cisco Packet Tracer

Step 1. Open Cisco Packet Tracer Application.

Step 2. Select **end devices (Router 1841 and PCs)** from the bottom left-hand corner and drag it to the sandbox screen.

Step 3. Now select **connections** from the same bottom left-hand corner. Create connections by selecting **copper cross-over cable** from the second menu to the immediate right.

Step 4. Click on *Router0*, and connect the cable via *FastEthernet0/0*. Now click the *PC0* and select *FastEthernet.* Do the same operation to *PC1*, only this time connect the cable to *FastEthernet0/1* since *FastEthernet0/0* is already taken by *PC0*.

Step 5. Click on Router0 for configuration menu and verify that it is turned on. Click on **CLI** tab to access the configuration menu and follow these instructions:

- Enter no for the question asked and Press **RETURN** to start the session

- Type **enable** to get to *privileged mode* (this gives you more options in configuring the router)

- Type **config terminal** (or **config t** for short) to access the configuration menu.

- Type **interface fastethernet0/0** to access Ethernet0/0

- Type **ip address 192.168.10.1 255.255.255.0** to assign an IP address and subnet mask to the interface.

- Type **no shutdown** to open the interface up for business.

Step 6. Do the same for FastEthernet0/1:

- Press **Ctrl + Z** to go back to the previous mode.

- Type **interface fastethernet0/1**

- Type **ip address 192.168.20.1 255.255.255.0**

- Type **no shutdown**

Step 7. Configure Gateway on each computer:

- Click on PC0 to bring up the configuration menu.

- Under global settings you will find a field for the gateway. Enter the corresponding IP address of the router's interface, which is **192.168.10.1**.

- Then click the FastEthernet tab on the left column to set the actual computer's IP address to be on the network. Use **192.168.10.2** for the IP address, and **255.255.255.0** for the subnet mask.

- Do the same thing for PC1, only use **192.168.20.1** for the gateway address, **192.168.20.2** for the IP address, and **255.255.255.0** for the subnet mask.

Step 8. Confirm that network works:

- Click the packet icon on the right menu.
- Click on PC0 and then click PC1.
- Notification will appear at bottom-right corner for Successful transmission.

Assignment: Configure the network as shown below in the figure.