**LAB-2**

**EXERCISE- 1**

**CONNECTION OF 2 PC WITH ROUTER**

**INSTRUCTIONS:**

**STEP BY STEP PROCEDUE:**

1. First we selected a Router and 2 PCs.
2. Now we have to assign IP to both PCs.
3. We will click on the PC0 and go to IP configuration and assign it 192.168.0.2 and default gateway is 192.168.0.1.
4. Now we will click on PC2 and on IP configuration we will assign it 192.168.0.3 and default gateway that I assigned is 192.168.0.4.
5. Now we will configure Router by both interfaces.
6. At first we will go to the interface 0 and turn it’s port on and assign it IP 192.168.0.1 as default gateway of PC0.
7. Same work will be done on interface 1 and default gateway will be the IP of interface 2.
8. As green color is showing in the wire our connection is successful.

**ANSWER QUESTOINS**

**Q NO 1**

**ROUTERS:**

Routers means to route or show the path. Router is used for sending data from sender to the receiver and Router directs the path by addressing. Sender and receiver both are assigned with unique addresses called IP.

**HUBS:**

Hubs are used for connecting multiple PCs together. The hubs forward data to all devices connected to it without discrimination. No addressing is used it will simply forward message to all connected devices. There is lack of security and management in hubs and they also cost less.

**SWITCHES:**

Switches are same as Hubs but they do not forward message to all devices connected to it. Data is in the form of packets and switches determine which device is going to receive and there is better security and management in switches and they are also expensive than hubs.

**Q NO 2**

**Ipconfig:**

This command was used for accessing the details and range of IPs. This command shows all the IP default gateway addresses and the range of IP that tells how many devices can be connected to it.

**Ping:**

This command is used to send message or packets of data to the other devices or devices across other network with the help of routers.