Ex: no: 3   Cisco Packet tracer.
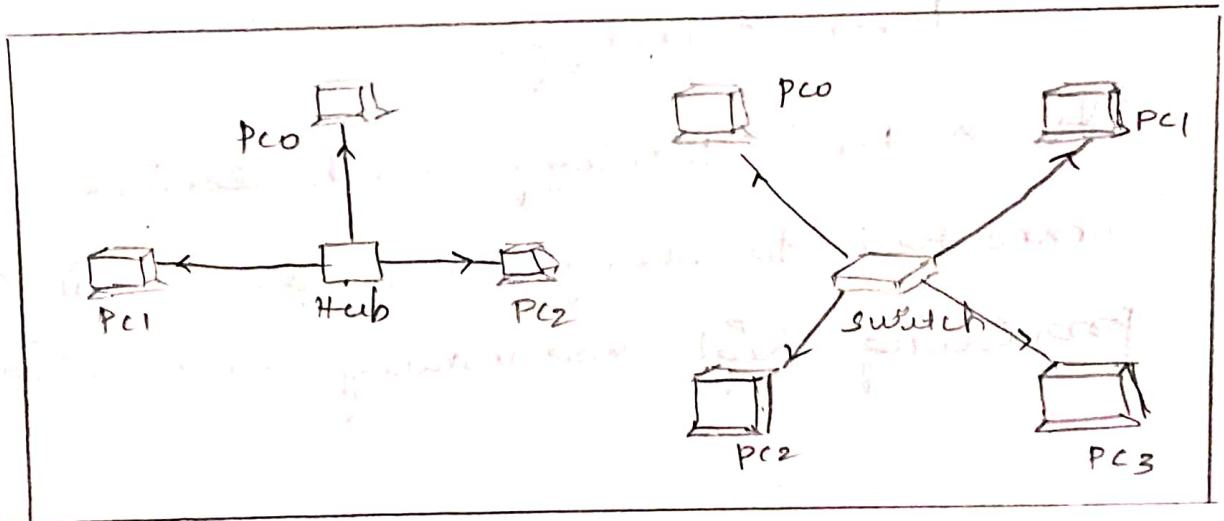
Date: 27.8.24

Aim:

To study the packet tracer tool installation and User interface overview.

Analyse the behaviour of network using CISCO PACKET TRACER. simulator.

1. From the network Components box, click and drag and drop the below components:

     a. 4 Generic PCs and one HUB

     b. 4 Generic PCs and one switch.

2. click on Connections

     a. click on Copper - through cable

     b. Select one of the PC and connect it to HUB using the cable. The Link LED should glow in green, indicating that link is up.

     c. Similarly connect 4 PCs to the switch using copper - through cable

3. click on the PCs connected to hub, go to the dekstop tab, click on IP configurations and enter the IP address and subnet Mask. Here, the default gateway and DNS server information is not needed.

Click on the PDU (Message icon) from the common tool bar.

a. Drag and drop it on one of PC and then drop it on another PC connected to the HUB.

4. Observe the flow of PDU from source PC to destination PC by selecting the realtime mode

5. Repeat step #3 to step #5 for the Pcs connected to the switch.

6. Observe how HUB and switch are forwarding the PDU

PCO

IP Configuration

IP config
O DHCP   ⊙ Static
IP Address   10.1.1.1
Subnet Mask   255.0.0.0
default gateway
DNS server

PC1

IP configuration

ip config
O DHCP   ⊙ static
IP Address   10.1.1.2
subnet mask   250.0.0.0
default gateway
DNS server

Student observation :

a. From your observation write down the behaviour of switch and HUB in terms of forwarding the packets received by them

Switch : forwards packets only to the specific ports

Hub : Broadcasts packets to all the connected devices.

b. Find out the network topology in your college.

Mesh topology.

In a Mesh topology each devices is connected to every other device in the network providing high redundancy and reliability.

Result :

The experiment was successfully executed and the O/P is verified.