

21/1/24.

## Practical - 3

Aim:

To study the Packet Tracer tool Installation and User Interface

Overview.

Analyse the behaviour of network devices using Cisco packet tracer simulator.

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

- a) 4 Generic PCs and One HUB
- b) 4 Generic PCs and One switch.

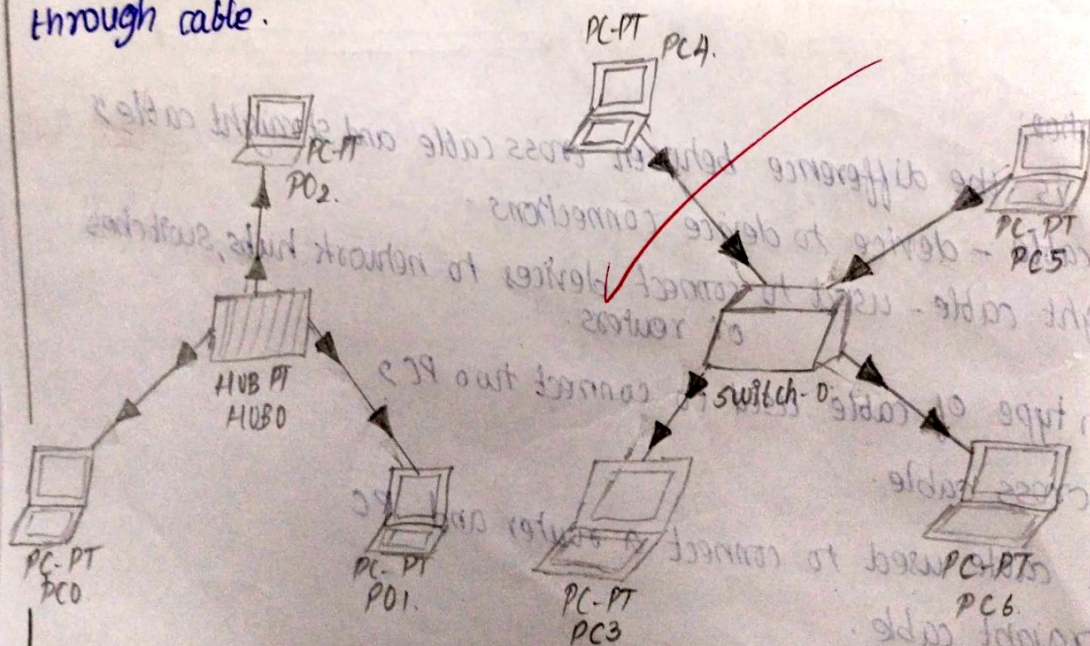
2. Click on Connections:

a) Click on Copper straight-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. Similarly connect remaining 3 PCs to the HUB.

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





3. Click on the PCs connected to hub, go to the Desktop tab, click on IP configuration and enter an IP address and subnet mask. Here as there are only two end devices in the network.

Click on the PDU (message icon) from the common tool bar,  
a. Drag and drop it on one of PC and drop it on another PC.

4. Observe the flow of PDU from source to destination.

5. Repeat step #3 to step #5.

6. Observe how HUB and switch are forwarding.

PC0
IP configuration
IP configuration
ODHCP <input checked="" type="radio"/> Static
IP Address 10.1.1.1
Subnet Mask 255.0.0.0
Default Gateway
DNS server

Observation:

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

Switch: forwards packets only to the specific ports.

Hub: Broadcast packets to all the connected devices.

b) Find out the network topology in your college.

Mesh topology

In a mesh, each device 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.

*[Signature]*  
31/8/24