

CISCO PACKET TRACERAIM:

To understand & study the packet tracer tool installation & user interface.

d) Analyse the behaviour of network devices using CISCO packet tracer simulator.

1) From the network component box, click & drag & drop the below components.

a) 4 generic PCs & one HUB

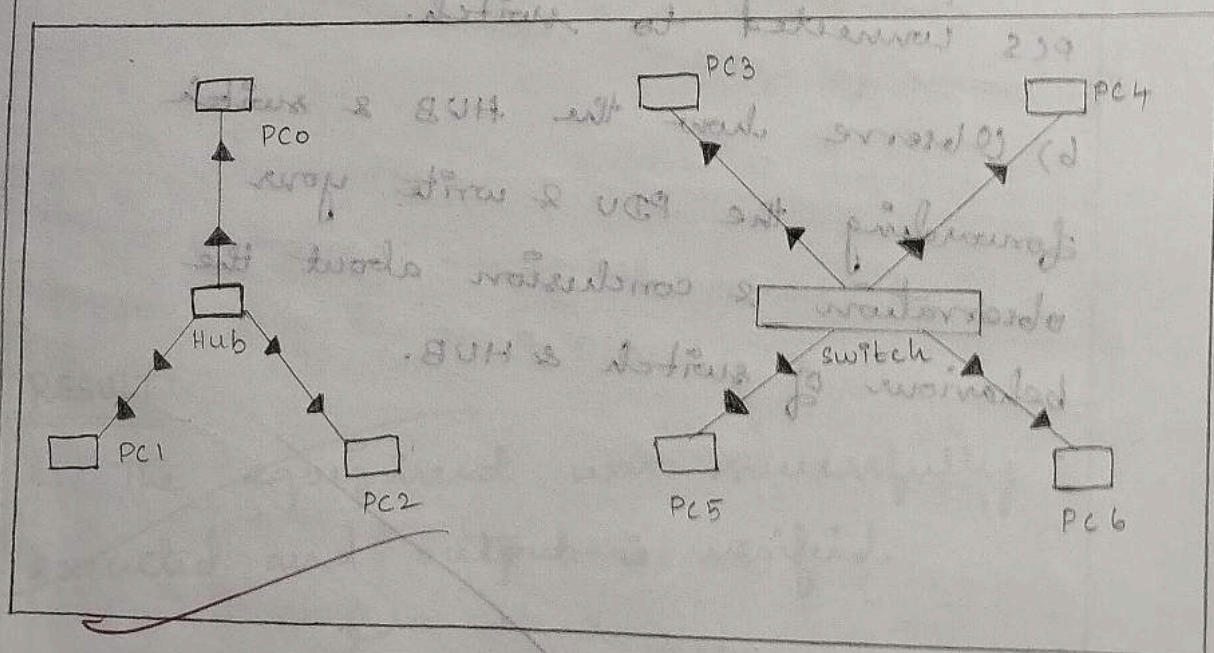
b) 4 generic PCs & one switch

2) click on connections:

a) click on copper straight through cable

b) Select one of the PC & connect it to HUB using the cable. The link should glow

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



3) Click on the PCs connected to hub. Click on IP configure & enter 10, the default gateway & DNS server information is not needed as there only two & end devices.

IP configuration	
DHCP static	
IP Address	<input type="text" value="10.1.1.1"/>
Subnet mask	<input type="text" value="255.0.0.0"/>
Default gateway	<input type="text" value=""/>
DNS server	<input type="text" value=""/>

IP configuration	
DHCP static	
IP Address	<input type="text" value="10.1.1.2"/>
Subnet mask	<input type="text" value="255.0.0.0"/>
Default gateway	<input type="text" value=""/>
DNS server	<input type="text" value=""/>

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

5) Repeat step #3 to step #5 for the PCs connected to switch.

6) Observe how the HUB & switch forwarding the PDU & write your observation & conclusion about the behaviour of switch & HUB.

Observation:

a) switch: forwards packets only to the specified ports.

Hub: Broadcast packets only to all the connected devices.

b) Mesh technology:

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

Mesh topology is a type of network topology in which every node is connected to every other node in the network. This provides a high level of redundancy and reliability, as data can be sent from one node to another through multiple paths. Mesh topology is commonly used in wireless networks, such as mesh Wi-Fi networks, and in some industrial control systems.

RESULT:

The equipment was successfully executed and output is verified.

Dr
11/9/24