Practical - III

Aim:

To understand environment of CISCO PACKET TRACER to design simple network.

A simulator, as the name suggest, simulates network devices and its environment. Packet Tracker is an exciting network design, simulation and modelling tool.

1. It allows you to model configuration and troubleshooting skills via computer as mobile devices
2. It allows you to model computer systems without the need for dedicated equipment.
3. Protocols in Packets Tracker are coded to work and behave in the same ways as they were on real hardware.

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 the link is up similarly, connect remaining 3 PCs to the HUB.

c. Similarly, Connect 4PCs to the switch using copper straight Through Cable.

3. Click on the PCs connected to hub, go to the Desktop t
Click on IP configuration, and enter an IP address and subnet
mask. Here, the default gateway and DNS server informatio
is not needed as there are only two end devices in the networ

Click on the PDU (message lion) from the common tool b

a. Drag and drop it on one of the PCs (source machine)
and then drop it on another PC (destination machine) connecte
to the Hub

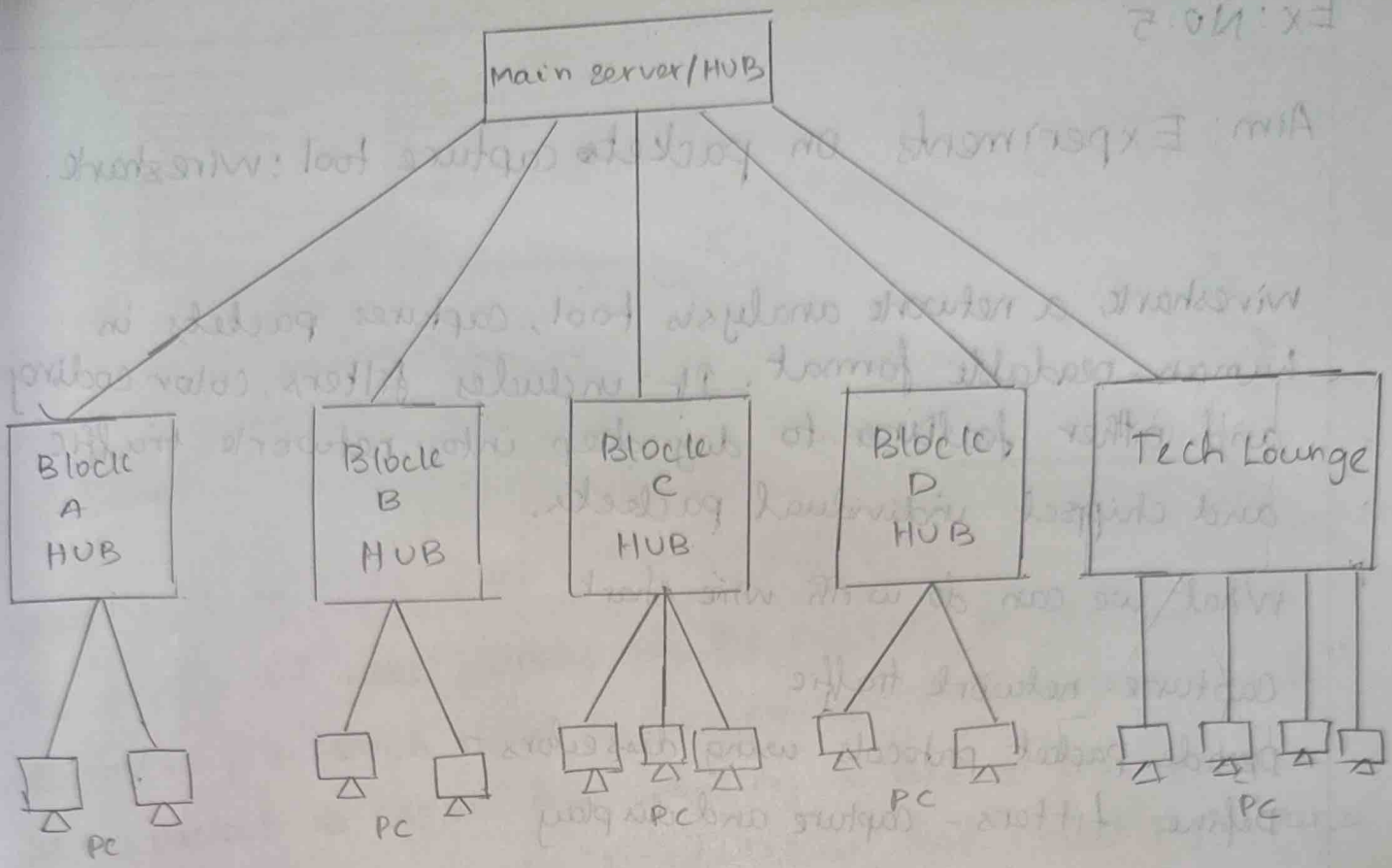
4. Observe the flow of PDU from source PC to destination PC
by selecting the Realtime mode of simulation.
5. Repeat step 3 to step 5 for the PCs connected to the switch
6. Observe how HUB and switch are forwarding the PDU
and write your observation and conclusion about the
behaviour of switch and HUB.

→ Student Observation:

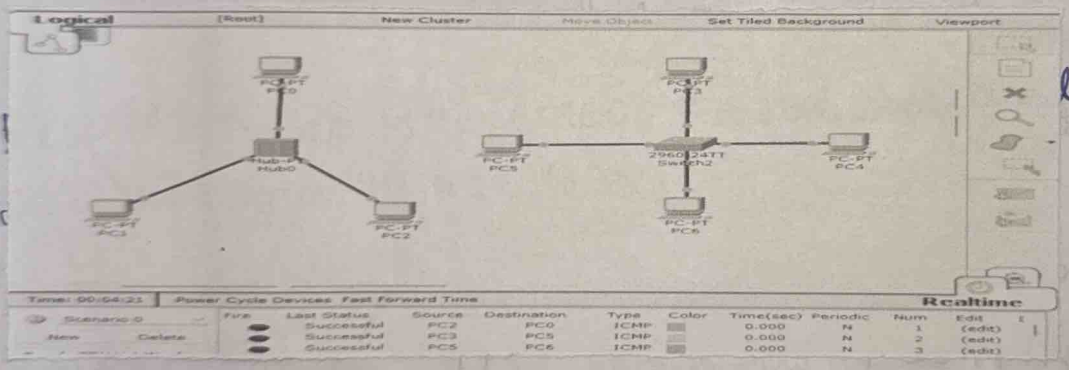
1. From your observation write down the behavior of switch
and HUB in terms of forwarding the packets recived by
them:

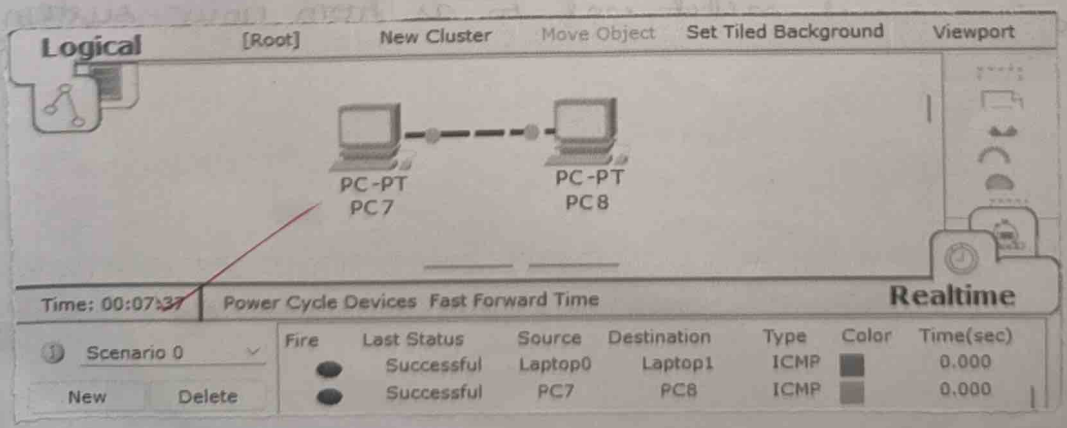
Both the switch and HUB acts as the middle part for all
the PCs (nodes) connected through this. The messages are
forwarded in a very instant manner and an animation
is shown in real time

2. Find out the network topology implemented in your colle
and draw and label that topology in your observation
book.



Tree Topology :





Result: Hence the CISCO Tracter was used to connect Switches and HUBs to PCs

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