Ex. NO: 3

24.7.25

Experiments on CISCO Packet tracer (Simulation Tool)

AIM:

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

To understand environment of CISCO Packet TRACER to design simple network

INTRODUCTION:

A Simulator, as the name suggests, simulate network devices and its environment packet tracer is an exciting network design, simulation and modelling tool.

1. It allows you to model complex system without the need for dedication equipment.

2. It helps you to practice your network configuration and troubleshooting skills via computer or an android or iOS based mobile device.

3. It is available for both the linux and windows desktop environment

4. Protocols in packet tracer are coded to work and behave in the same way as they would on real hardware

Analyse the behaviour of network device using CISCO Packet Tracer simulator.

1) From the network component, box, click and drag and drop the below component

a) 4 generic PCs and 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 and connect to HUB using the cable. the link LED should glow in green, indicating that the ink is up. similarly connect remaining 3pcs to the HUB

c) similarly connect 4pcs to the switch using copper straigh 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 mark Here, the default gateway, and DNS server information,

is not needed as there are only two end device in the network.

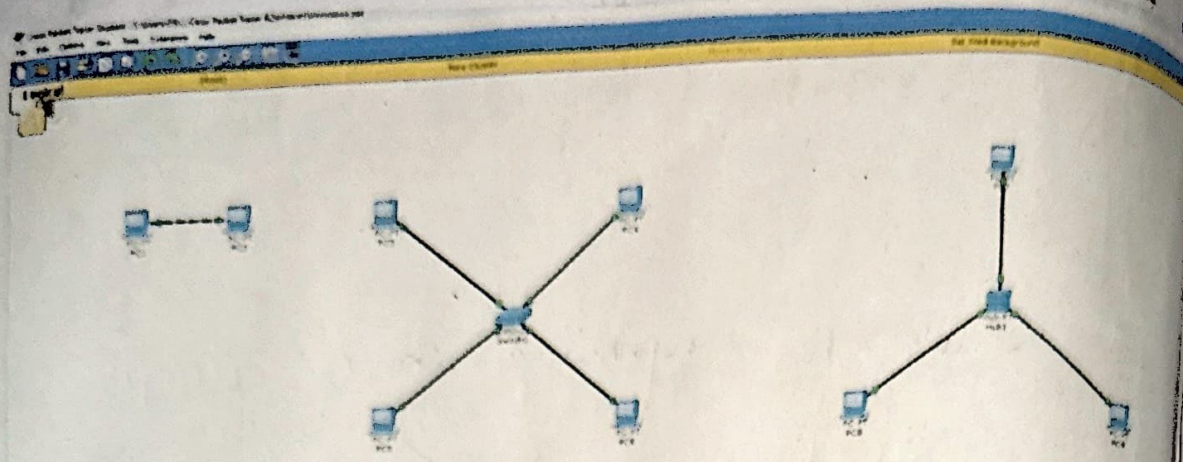
Click on the PDU (message icon) from the common tool bar

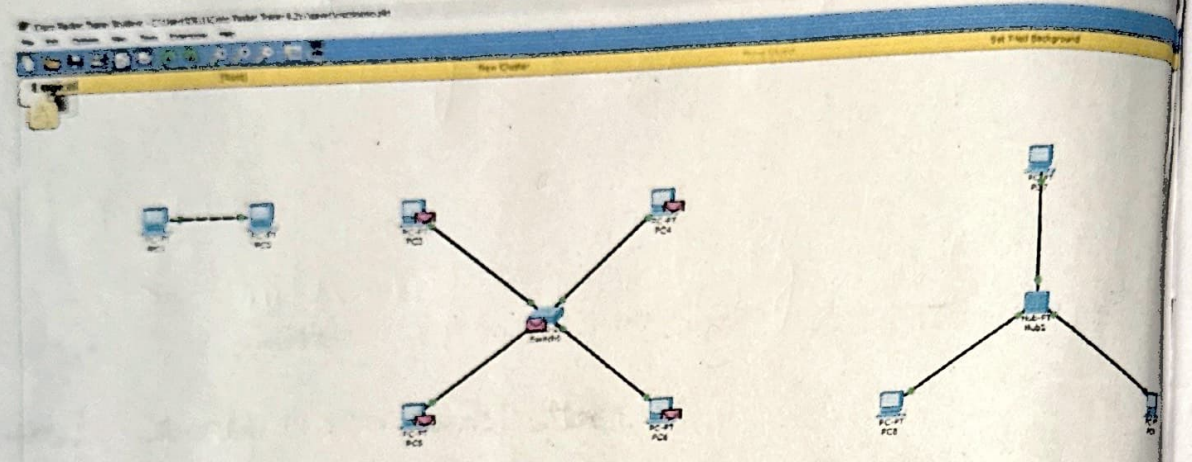
a) Drag and drop it on on PC (source machine) and then drop in on another (destination machine) connected to the HUB

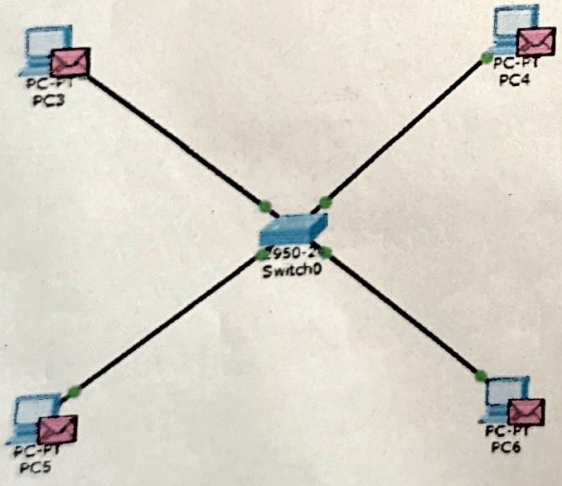
4) observe the flow on PDU from source to destination PC by selecting the relationship mode of simulation.

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 HUB.






PC-PT
PC3
PC-PT
PC4
2950-24
Switch0
PC-PT
PC5
PC-PT
PC6

STUDENT OBSERVATION:

a) Form your observation write down the behaviour of switch and HUB in terms of forwarding the packet received by them.

A switch forwards packets only to the specific device (port) based on MAC address, while a hub broadcasts packets to all connected devices.

b) Find out the network topology implements in your college and drawn and label that topology is your observation book.

the network topology commonly used in college is star topology, where all devices connected to a central switch or hub.

RESULT:

The packet tracer tool installation and user interface overview is studied