

24/7/25

### Exp No: 3 Experiment on CISCO PACKET TRACER (Simulation tool)

AIM:-

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

(a) To Understand Environment of CISCO PACKET TRACER to design simple network.

CISCO Packet Tracer (Simulation Tool) was successfully installed.

(b) 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 4 PCs to the Switch using Copper Straight-through cable.

3. Click on the PCs connected to hub go to Desktop tab, click on IP Configuration and enter an IP address and Subnet mask.

Here the default gateway and DNS server information is not needed as there are only few end devices in the network.

Click on the PSDU 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 PSDU 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 PSDU and about the behaviors of Switch and Hub.



### Student Observation :-

(a) From 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 implemented in your college and draw and label that topology in your observation.

The network topology commonly used in colleges is Star topology where all devices are connected to a central switch or hub.

### Result :-

The packet tracer tool installation and user interface overview is studied.

Dated, 14/8/26