Practical -3

Aim:

Ex. no: 3

30/07/24

To study the Packet tracer tool installation and User Interface Overview

An alyse the behaviour of network devices using CISCO POPCKET TRACER simulator

1) From the network components bosc, click of drag-and-drop the below components:

a) It breneric PCs and One HUB

b) 4 Greneric 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 wing the cable. The link LED should glow in
 - green, indicating that the link is up.

 c) Similarly Connect 4 PCs to the switch using copper straight-through cable.
- 3) Click on the PC's converted to hub, go to the Destrop deals, click on IP Configuration, and enter an "Parisons and subnet mark. Here, the default gateway and DNS serves information is not needed as there as

only two end devices in the network.	
PCO	PCI
IP Configuration	IP Configuration
IP Configuration	IP Configuration
ODHCP OStatic	ODHCP OSTATIO
1P. Address 10.1.1.1	IP Address [10.1.1.1
Subnet Mark 255.0.0.0	Subnet Mark 255.0.0.
Default Grataway	Default trateway
DNS Server	DNS Server
Click on the PDV (message icon) from the common	
tool bor, Drag and drop it on some of PC and then	
drop it on another PC connected to the HUB.	
4) Observe the flow of E	00/1 /800 100
to destination PC by selection	tions the Roal time and
situ simulation.	Mode Mode
ElProd Startst	of ot believe

- 5) Repeat Step #3 to setep #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:

Switch:

Functionality: A switch operates at the data link layer of the OSI model.

Packet Forwarding: A switch was MAC addresses to forward data packets only to the specific port connected to the destination device.

This reduces collisions and improves network efficiency Behavious: When a switch receives a packet, it checks the destination MAC address, look it up in its MAC address table, and forwards the packet only to the port associated without address.

Hub Behavious:

The When a hub preceives a packet, it amplifies the signal and forwards it to every device connected to the hub, leading to potential network collisions and reduced efficiency.

b) The network topology implement in our college is

PCI PC2 PC3 Switch /Router Ina and autil PC4 PC5 PC6 Joshie terrical J label: Each PC with unique identifier (eg., PC1, PC2, etc) - Centeral device es Switch or Router Straight lines Ishow the cabling. puters, a Switch with sharing rept weight is sufficient for reliable of shore series and it to should cables. I track should at archigense way tomal: 6-gold in deprise go is which who terroll of me on ugging one of one of the Ethonot cable into your scorrector and ellar and juto your correctored 2017/24 239 rusy of marbon of misself 4-1968 I leg on to the client compiler or Admini Repult: Thus the output is verified successfully