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192524046 Experiment-6

IMPLEMENTATION OF TREE TOPOLOGY USING PACKET TRACER.

AIM: To implement a tree topology using packet tracer and hence to transmit data between the clients connected using tree topology.

Software / Apparatus Required: packet tracer,

End devices , Hubs , connectors , terminal.

Procedure:

Steps for building topologies :

Step 1: Start packet tracer

Step 2: choosing Devices and connections

Step 3: Building the topology - Adding Hosts

Step 4: Building the star topology - connecting the Hosts to Hubs.

Step 5 : Connect PCs to Hub by first choosing connections.

Step 6: Building the tree topology - connecting the Hubs to Active Hub.

Step 7: configuring ip address and subnet masks on the Hosts.

Step 8: verifying connectivity (in Real time mode)

Result: Thus the tree topology is implemented using Packet tracer.

Experiment - 7

IMPLEMENTATION HYBRID TOPOLOGY

CBus and RING Topologies using packet tracer.

Aim: To Implement a hybrid topology using packet tracer and hence to transmit data between the devices connected using the topology.

Software / Apparatus Required: packet tracer / End devices, Hubs, Connects.

Steps for building topologies:

Step 1: Start packet tracer

Step 2: choosing Devices and connections

Step 3: Building the topology - Adding Hosts.

Step 4: Building the Bus topology - connecting the Hosts to Hubs.

Step 5: Building the Ring topology - connecting the Hosts to Hubs

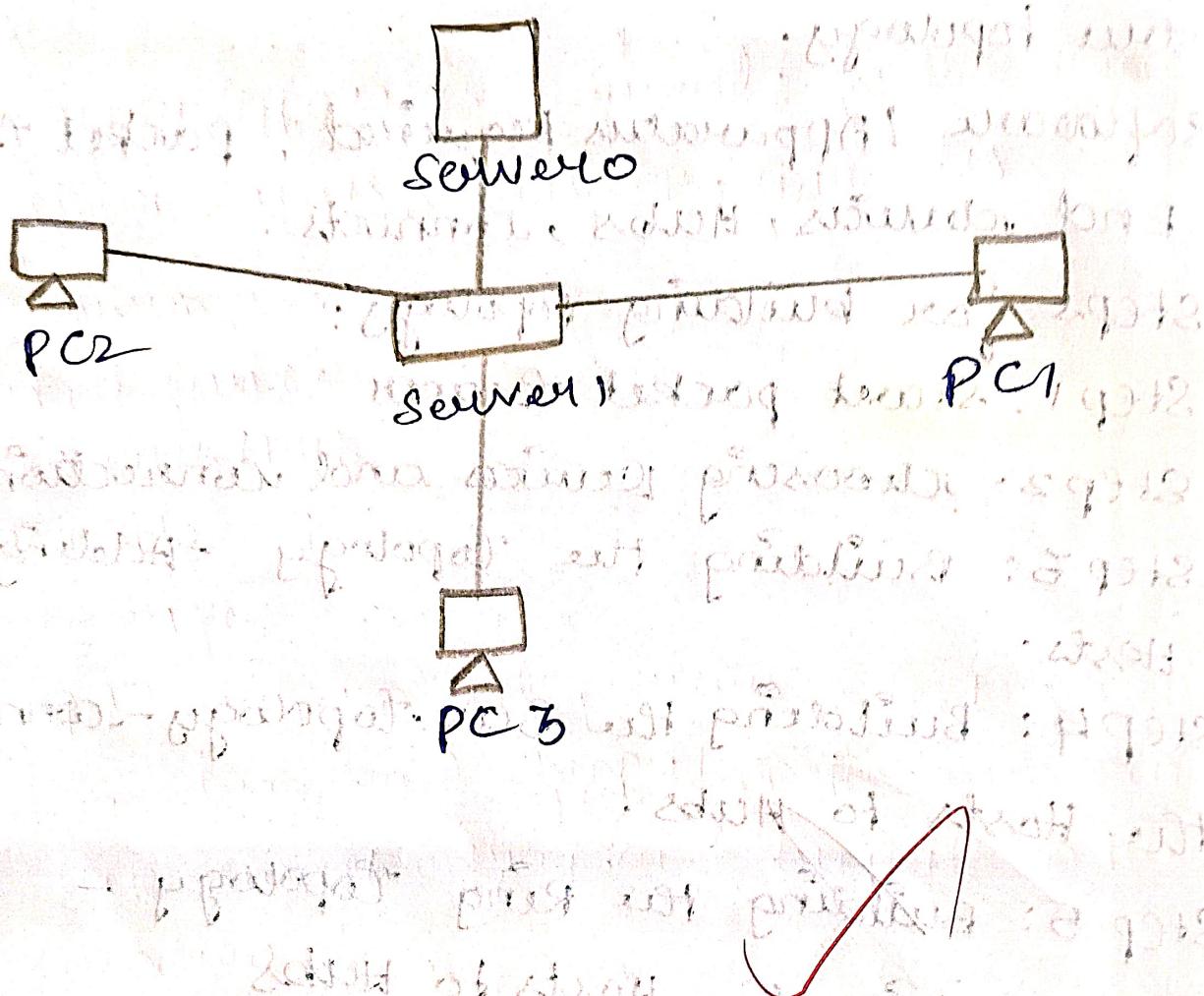
Step 5: connects PCs to Hub by first choosing connections

Step 6: Building the tree topology - connecting the Hubs to Active Hub.

Step 7: configuring IP addresses and subnet masks on the hosts.

Step 8: verifying connectivity in Realtime mode

Step 9: verifying connectivity in Terminal mode



Result: Thus the Hybrid topology is implemented with packet tracer simulation tool.

DATA LINK LAYER TRAFFIC SIMULATION USING PACKET TRACER; ANALYSIS OF ARP

Aim: To implement Data link Layer traffic simulation using packet tracer

Analysis of ARP using given simulation.

Software/Apparatus Required: Packets tracer, End devices, switches, connectors.

Requirements -

1) End device

2) switch

3) cable

procedure: 1) open packet tracer

2) click on the list the available

capture interface

3) choose the pc, server and hub

4) later give connection from

hub to the remaining pc, server, etc.

5) Give ip address to the pc with

configuration

6) minute the source and destination

Result: Thus the Data link layer

traffic simulation using packet tracer

Analysis of ARP is implemented.

Experiment - 9

DATA LINK LAYER TRAFFIC SIMULATION
USING PACKET TRACER ANALYSIS OF CSMA/CD
& CSMA/CA

Aim: To implement Data link layer traffic simulation using packet tracer analysis.

(Q) CSMA/CD & CSMA/CA

software / apparatus required: packet tracer / End devices, switches, cables.

Requirements:

- 1) End device
- 2) switch / hub
- 3) cable

procedure:

Step 1: click on end devices, select generic PC's drag and drop it on the window. click switch drag and drop it on the window.

Step 2: Select the straight through cable and connect all end device switch.

Step 3: Now set the IP address to Host A (192.168.1.1) in static mode. And Host B (192.168.1.2) and Host C (192.168.1.3)

Step 4: To view the IP address, given IP config command in command prompt.

Step 5: Now display the packet transmission in simulation mode.

Result: Displayed the network messages.

- Collision resolution, waiting time



Server 0

Collision

switch 0



PC0

PC2

PC1

and click on the PC1 node. Then press F5 key

- media independent

address, MAC address, destination & port

Result: most of the ports have propagated

- source propagation

step 6: when click on the F5 key

then the MAC

address, destination address, port number & signal

will appear below it which have traffic

Result: Thus, Data Link Layer Traffic simulation using packet tracer Analysis of CSMA/CD & CSMA/CA is implemented

~~1985-1986~~ Experiment - 10
MATERIALS LAB IN CLASS PACKET
~~1986-87~~

~~Some reading materials lab in next packet~~

Supplies / Preparation Required : packit tray
End dishes, kitchen containers.

Procedure:
Step 1: Search and select a project
Create a new project.

Step 2: Select the appropriate network device

Step 3: Drag and Drop a switch onto the lower portion area.

Step 4: connect computers to the switch by dragging and dropping them on the workspace area.

~~Step 5: Repeat step 4 to add more computers to the DB.~~

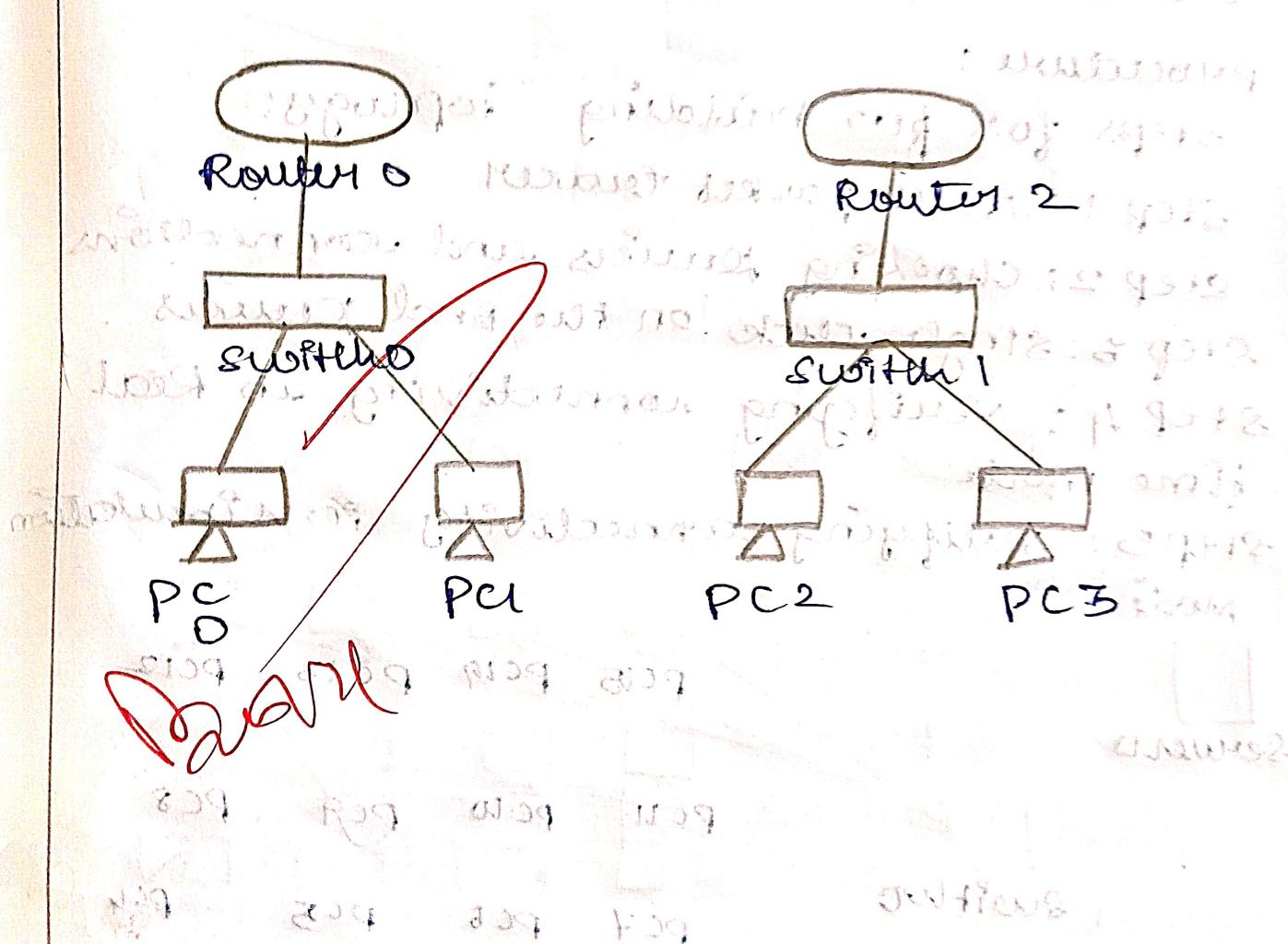
Step 5: Connect the switch to router -
Drag and drop a router onto the
workspace area and connect it
to the switch using serial cable.

Step 7: Configure IP addresses on the computers.

Step 8: Configure IP addresses on the router interfaces.

Step 9: Test connectivity, open the command prompt on each computer and try to ping other computers and the router's interfaces to ensure connectivity.

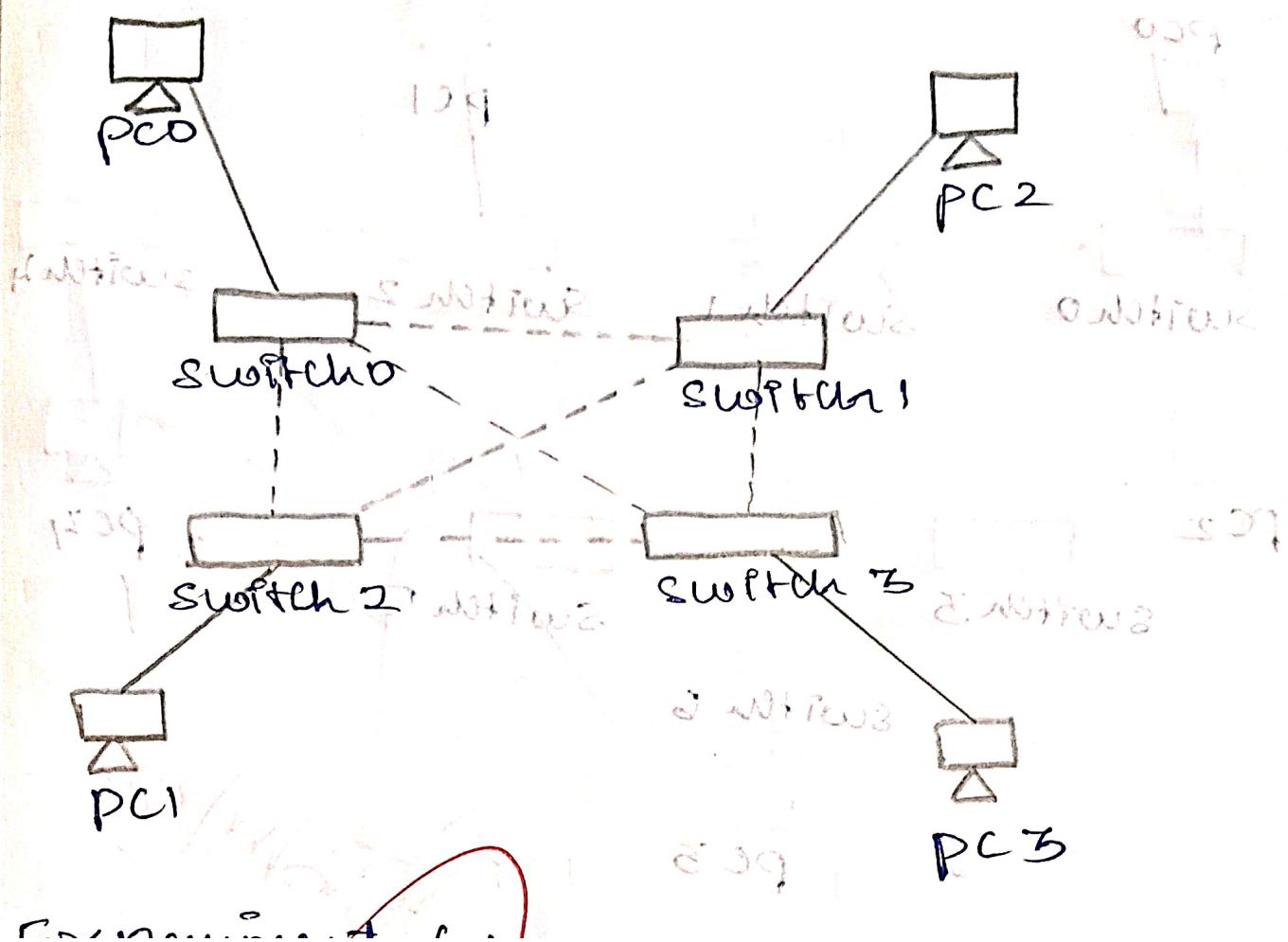
Step 10: Customize and expand the lab as desired.



Result: Thus the computer lab is successfully set up.

Experiment 5:

1. 8 frames per second



Experiment 8 :

