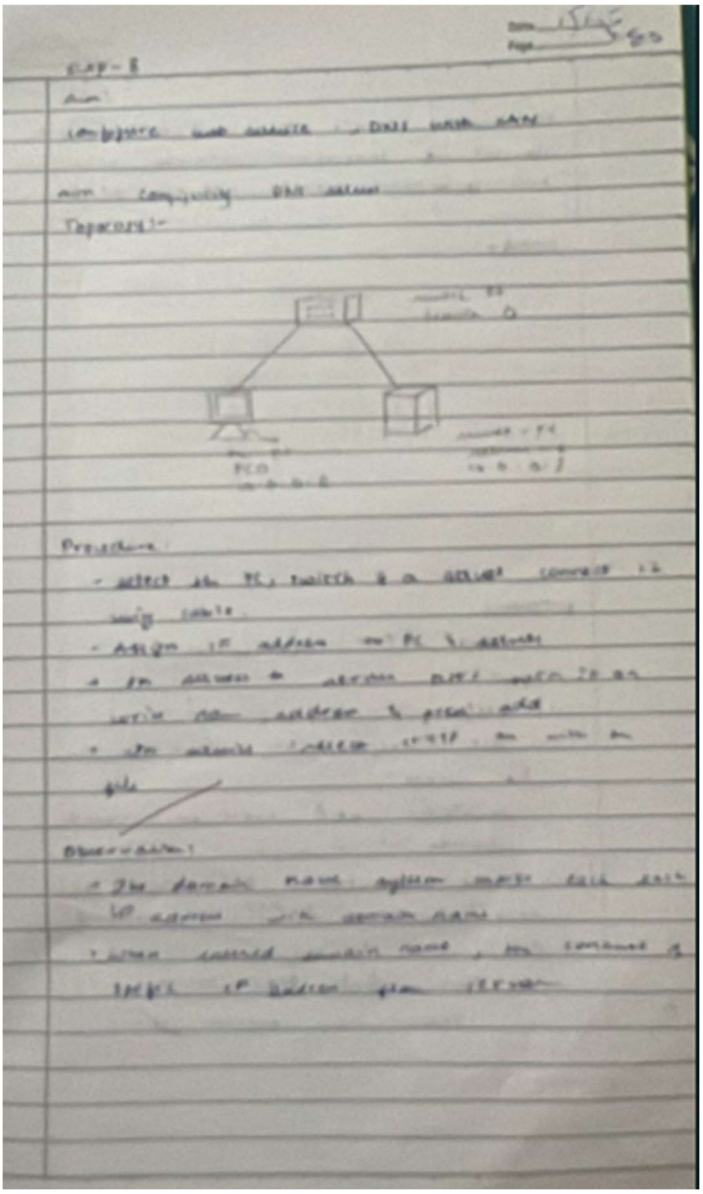
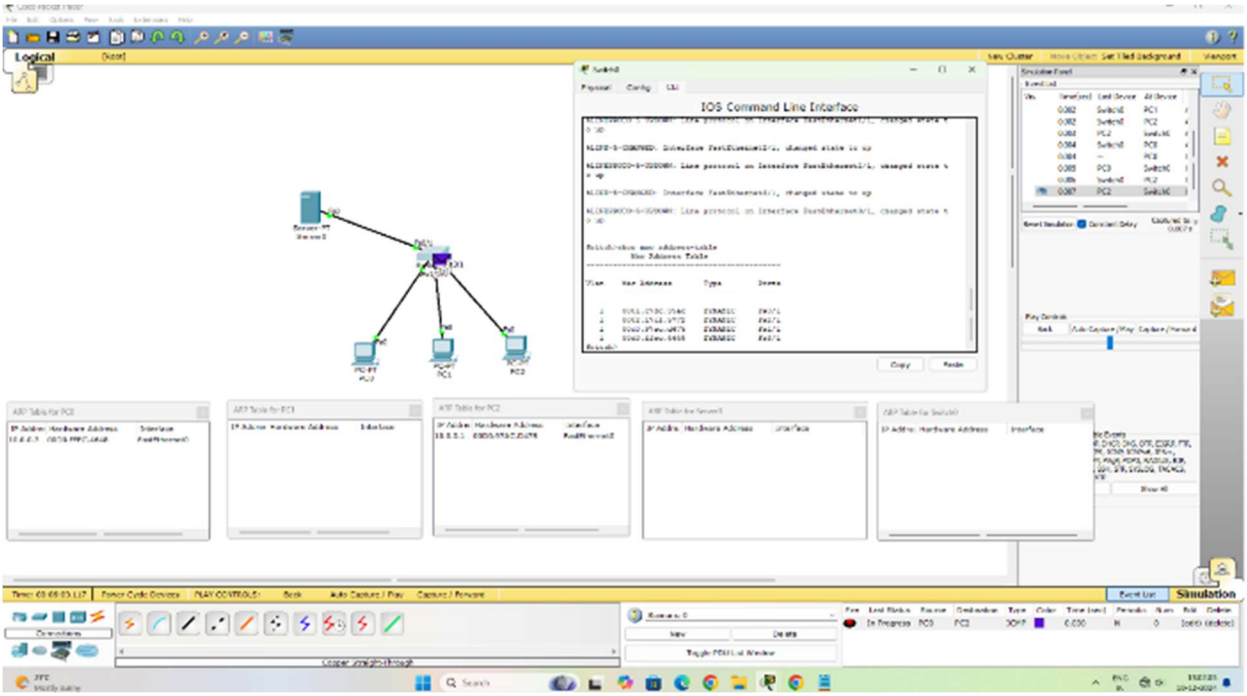
LAB 8

EXP 8




Logical
IOS Command Line Interface
Simulation

EXP-9

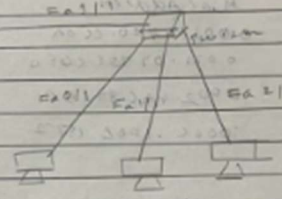
Date / /
Page

LAB - 8

EXP - 9

Aim: To construct simple LAN & understand the concept & Operation

Topology:



Procedure:

Create a topology as shown above
assign ip address to all
use the unspecified
command in CLI in arp - a
initially ARP table is empty

In CLI of switch, the command, show mac-address table on every transaction see how switch learns from transaction builds address table

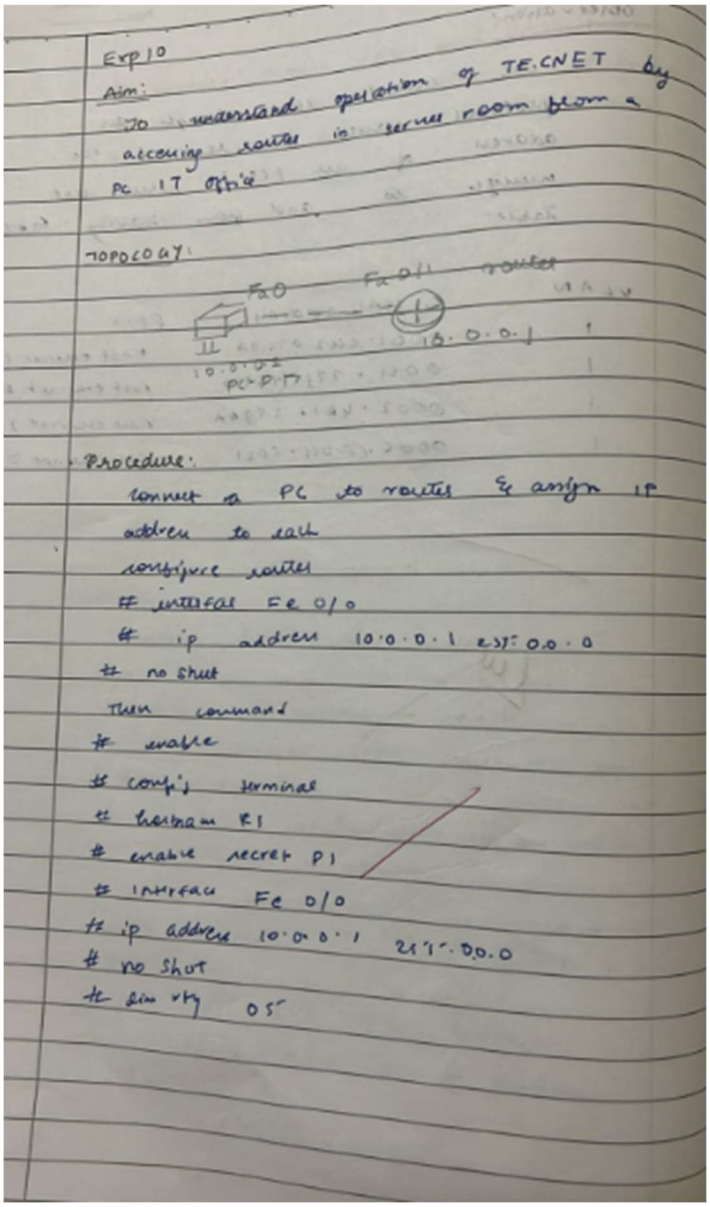
Page

Observation:

we can see that through ARP protocol server has resolve the address of all PCs & share

VLAN	MacAddress	Port
1	0001.6320.CC0A	Fast ethernet
1	0021.0978.C0E0	Fast ethernet
1	0002.4AC3938A	Fast ethernet
1	000C.CF0C.1572	Fast ethernet

EXP 10



Exp 10

Aim:

To understand operation of TE.CNET by accessing router in server room from a PC in IT office

TOPOLOGY:

Procedure:

connect a PC to router & assign IP address to each

configure router

interface Fe 0/0

ip address 10.0.0.1 255.0.0.0

no shut

Then command

enable

config terminal

hostnam R1

enable secret p1

interface Fe 0/0

ip address 10.0.0.1 255.0.0.0

no shut

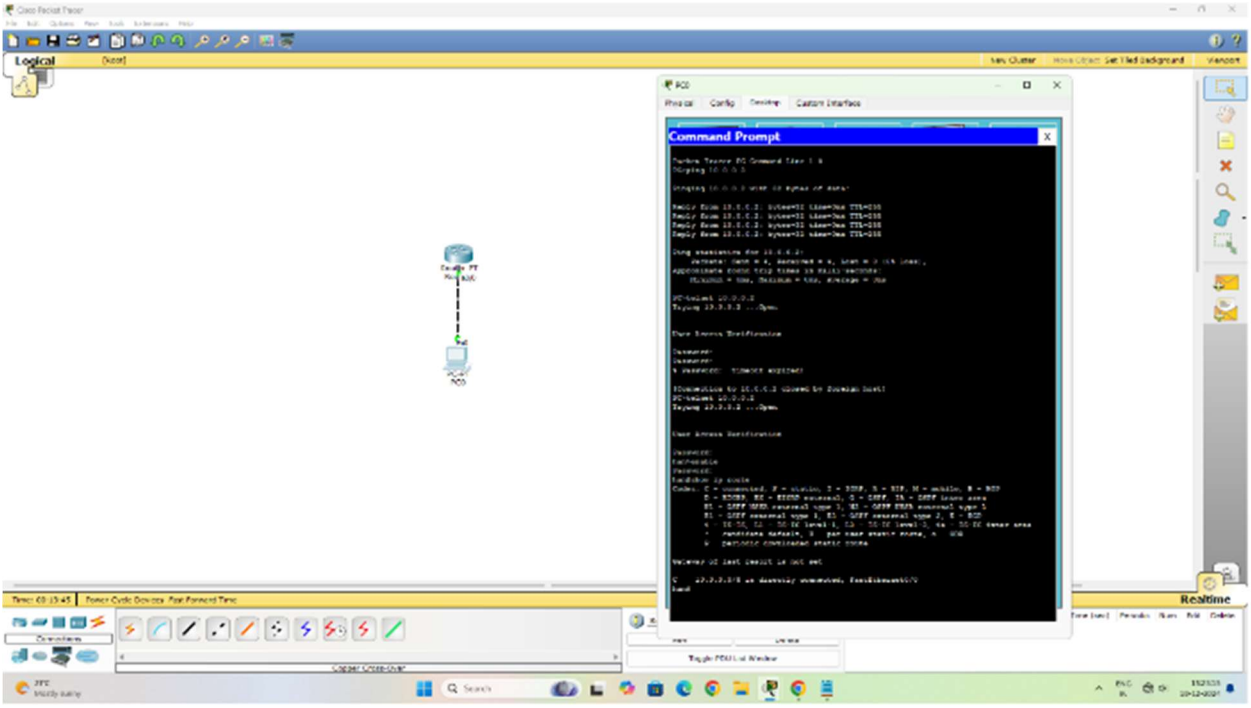
do wr

login
password p0
exit
exit
R1 # wr

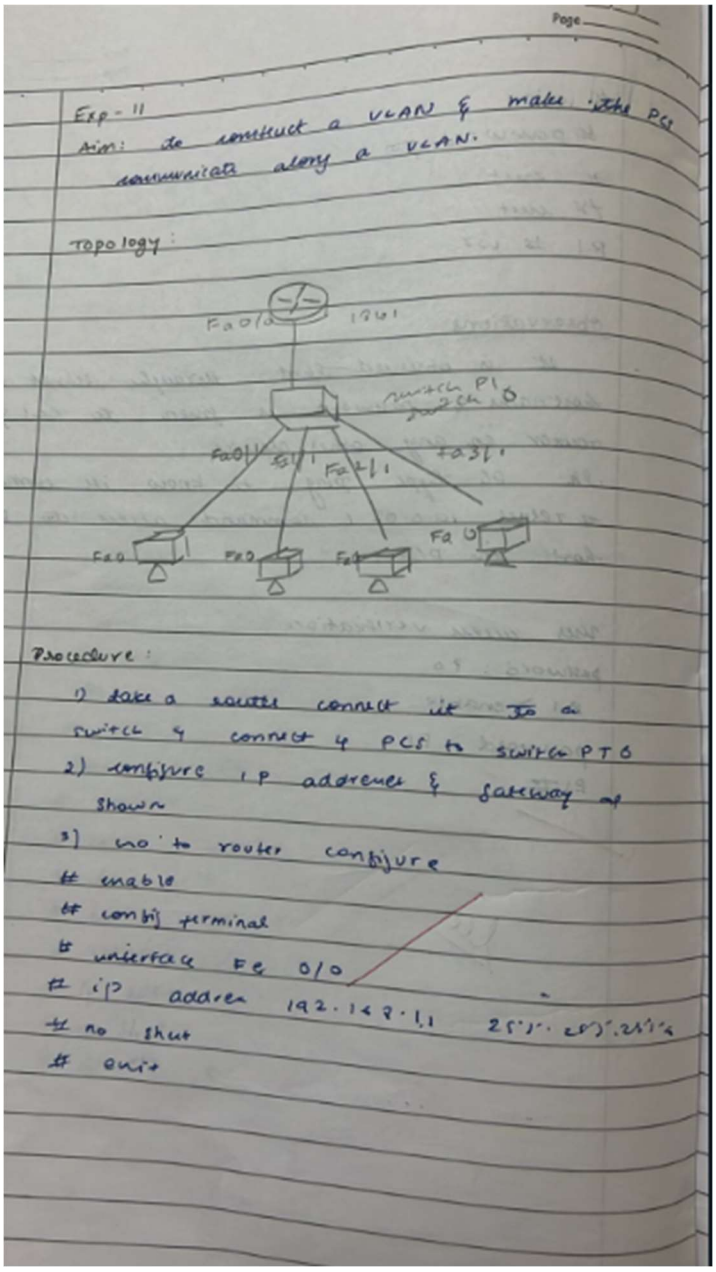
Observations:

It is observed that through telnet hostname & password is given to CCL router in any other device.
In PC type ping to know its conn
telnet 10.0.0.1 command access to
host in PC0.

User access verification
password : p0
R1 > enable
password : P1
R1#


Logical
PC0
Physical
Config
Desktop
Custom Interfaces
Command Prompt
Realtime

EXP 11



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Exp - 11

Aim: to construct a VLAN & make the PCs communicate among a VLAN.

Topology:

Procedure:

1) take a router connect it to a switch & connect 4 PCs to switch PT 0
2) configure IP addresses & gateway as shown
3) go to router configure
enable
config terminal
interface Fe 0/0
ip address 192.168.1.1 255.255.255.0
no shut
exit

4. select switch, go to config, select VLAN db
5. Set Vlan number to 2 & name, press add
6. Do VLAN trancking
7. Go to fastethernet 0/1, select Trunk
8. Go to fastethernet 2/1 select VLAN trunk.
9. In select VLAN db & enter the number & name of VLAN created.

Go to CLI - commands:

Router(VLAN) # exit
Router # config terminal
interface fastethernet 0/0.1
Router((config-sub) # encapsulation dot1Q
no ip address
exit

10) ping from 2 routers to other two

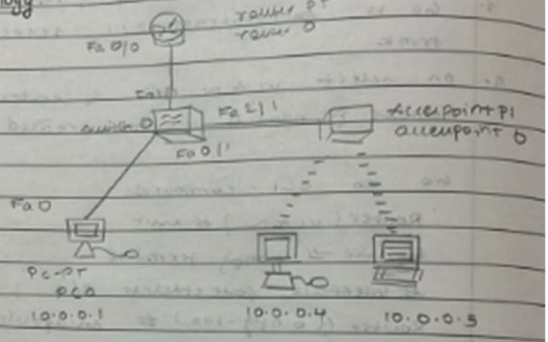
Observation:

VLAN trunking allows switches to forward different VLAN, over single linked cable trunk.
This is done by adding an additional header information called tag to the ethernet frame.

Exp 12

Aim: to construct a WLAN & makes the nodes communicate wirelessly.

Topology:



Procedure:

1) set a router connect it to a switch connect it to a PC
2) Configure IP address & router configuration
3) Select A Accesspoint - PC & PC & laptop
4) Configure accesspoint - Port 1 name any name select WEP & give 10 digit HEX key in PORT 1
Configure PC4 & laptop with wireless. Go to PC4, switch off device, drag PC-PT WM-1AM to CTRL component

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5. Drag DUMPSON interface to empty port switch ON

6. On both PC & laptop.

7) On PC & laptop go to wireless Add it to. Select WEP & add 10 digit number

8. Ping from every wireless device to wired device.

Observation:

1) Wireless can use WEP protocol
2) It requires SSID & key to be present
3) uses access point to establish wireless communication.
4) the wireless device & wired communicate each other

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