Exp. No: 8a

date: 18/10/24

Practical - 8a

Virtual LAN

AIM:

Simulate Virtual Configuation using Cisco Packet Tracer Simulation.

Procedure:

1) Create the network using 1 switch & 4 PCs as shown as in figure.

2) Assign IP address to the PCs

PC0 - 10.0.0.1
PC1 - 10.0.0.2
PC2 - 10.0.0.3
PC3 - 10.0.0.4

3) Check the network by sending packets (optional)

4) Right-click on switch & then on CLI and the following Command.

```
>enable.
# conf t
# Vlan 2
# name office
# exit
# Vlan 3        home
# name office
# exit
# Interface fast Ethernet 0/1
# Switchport access Vlan 2
# exit
```

Interface fastEthernet 0/2

Switchport access vlan 2

exit.

Interface fastEthernet 0/3

Switchport access vlan 3

exit

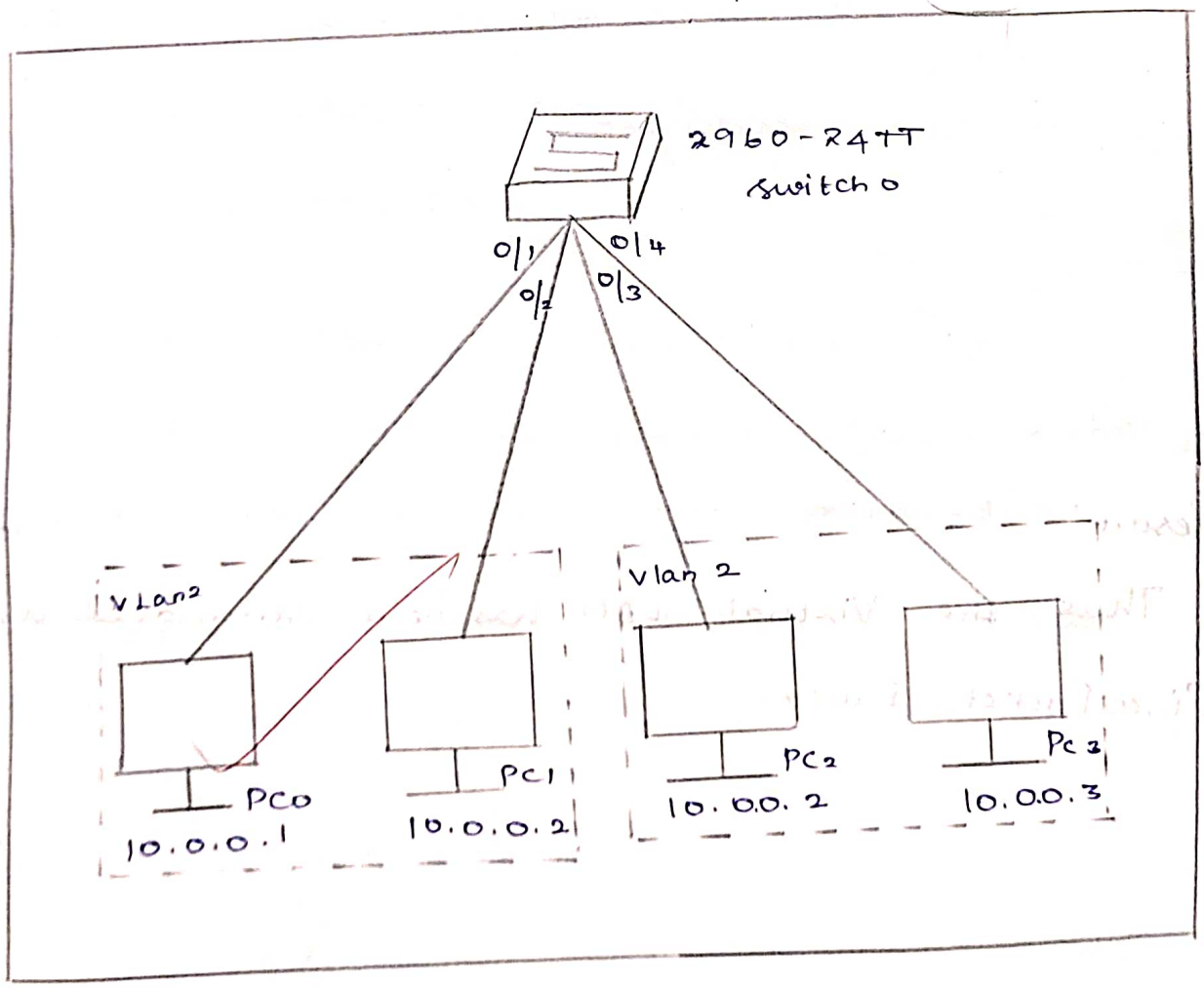
Interface fastEthernet 0/4

Switchport access vlan 3

exit.

5) Now try pinging packet from PCs to one's another.

Diagramatic Representation :-



Observation :

When Packet transfered from PC0 to PC1 then packets are sucessfully transfered. Similarly for PCs within same vlan packets are transfered successfully.

Whereas for PCs can't transfer packets out of its Vlan.

Output :

fire	Last Status	source	destination	type	colour	time	Nu
●	Successfull	PC0	PC1	ICMP	□	0.000	0
●	failed	PC1	PC2	ICMP	□	0.655	1

Result :

Thus the Virtual LAN has been stimulated us Cisco Packet tracer.

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Exp. No: 8b
date : 8/10/24

Practical - 8b

Wireless LAN

Aim:

To configure wireless LAN using Cisco Packet tracer

Procedure:

1) Create network 3 Pcs & a wireless Router.

2) Rightclick on the wireless router Note the IP address. It would be 192.168.0.1

↳ Disable the DHCP server.

↳ Save Settings.

3) Click on wireless on the same page

↳ Change Network name to

"MYHOME Network"

↳ Save settings

↳ click on wireless security wireless & change security mode to WEP from disabled

↳ Add key 1 : 0123456789

↳ Save settings.

↳ Then close the window.

4) Now assign IP to the PCs

PC0 = 192.168.0.5

↳ gateway - 192.168.0.1

PC1 = 192.168.0.6

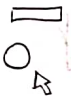
gateway - 192.168.0.1

PC_2 - 192.168.0.7

gateway - 192.168.0.1

5) Now click on PC0

↳ Click physical option

↳ Turn off that 

↳ drag the port in the diagram to the left men

↳ drag the 'WMP300N' to the port form the left.

↳ Turn on that.

↳ Now click on desktop → PC wireless

↳ click connect → site information → connect

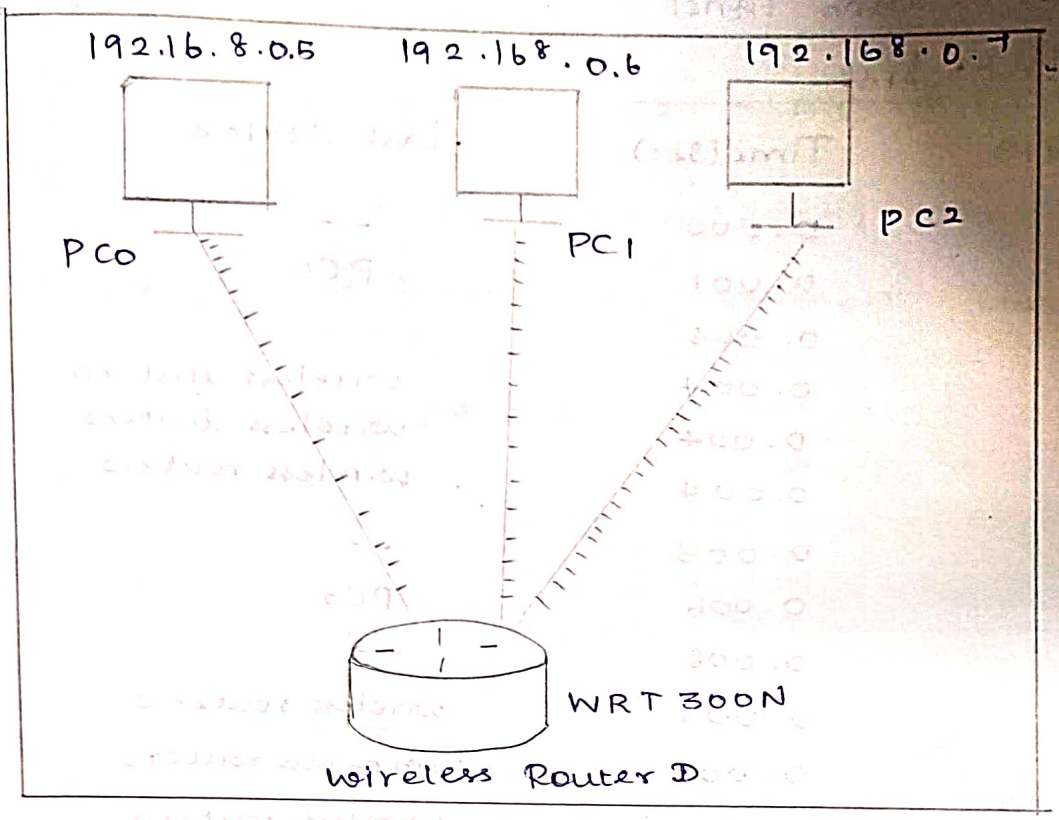
↳ Type '0123456789' in the WEP key!

↳ Connect

6. Repeat step 5 for the PC1 & PC_2

Then You can see the below connection in the network.

Diagramatic Representation:



Output

Thus the packets could be transmitted via wireless router.

fire	last status	source	destination	type	color	time	period	Num
●	successful	PC0	PC2	ICMP	■	0.000	N	0
●	successful	PC1	PC0	ICMP	■	0.566	N	1

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Simulation Panel

Event List

VIS	Time(sec)	Last device
	0.000	--
	0.001	PC0
	0.003	--
	0.004	wireless router0
	0.004	wireless router0
	0.004	wireless router0
	0.005	--
	0.006	PC2
	0.008	--
	0.009	wireless router 0
	0.009	wireless router0
	0.009	wireless router0
Visible	0.012	--

Student Observation:

a) what is SSID of wireless Router?

Ans: Service set identifier is the name assigned to a wireless network, allowing devices to identify and connect to the correct wifi. The SSID is broadcast by the router and helps distinguish one network from other in the same area.

b) what is security key in wireless router.

Ans:

A. Security key is a password or code used to protect a wireless network, ensuring only authorised users can connect. common types are WEP, WPA etc.

Result:

This wireless Lan has been configured successfully using cisco packet tracer.

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