10/9/24

PRACTICAL-8

VIRTUAL LAN

a) Aim:

simulate virtual LAN configuration using cisco packet Tracer simulation.

Procedure:

1. Create the network using 1 switch & 4PCs as shown in the figure.
2. Check the network by sending packets (optional)
3. 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

4. Right click on switch and then on CLI run the following command.

```
>enable
# conf t
# vlan 2
# name Office
# exit
# vlan 3
# name home
# exit
# interface fast Ethernet 0/1
```

switchport access vlan2

exit

interface fastEthernet 0/2

switchport access vlan2

exit

interface fastEthernet 0/3

switchport access vlan3

exit

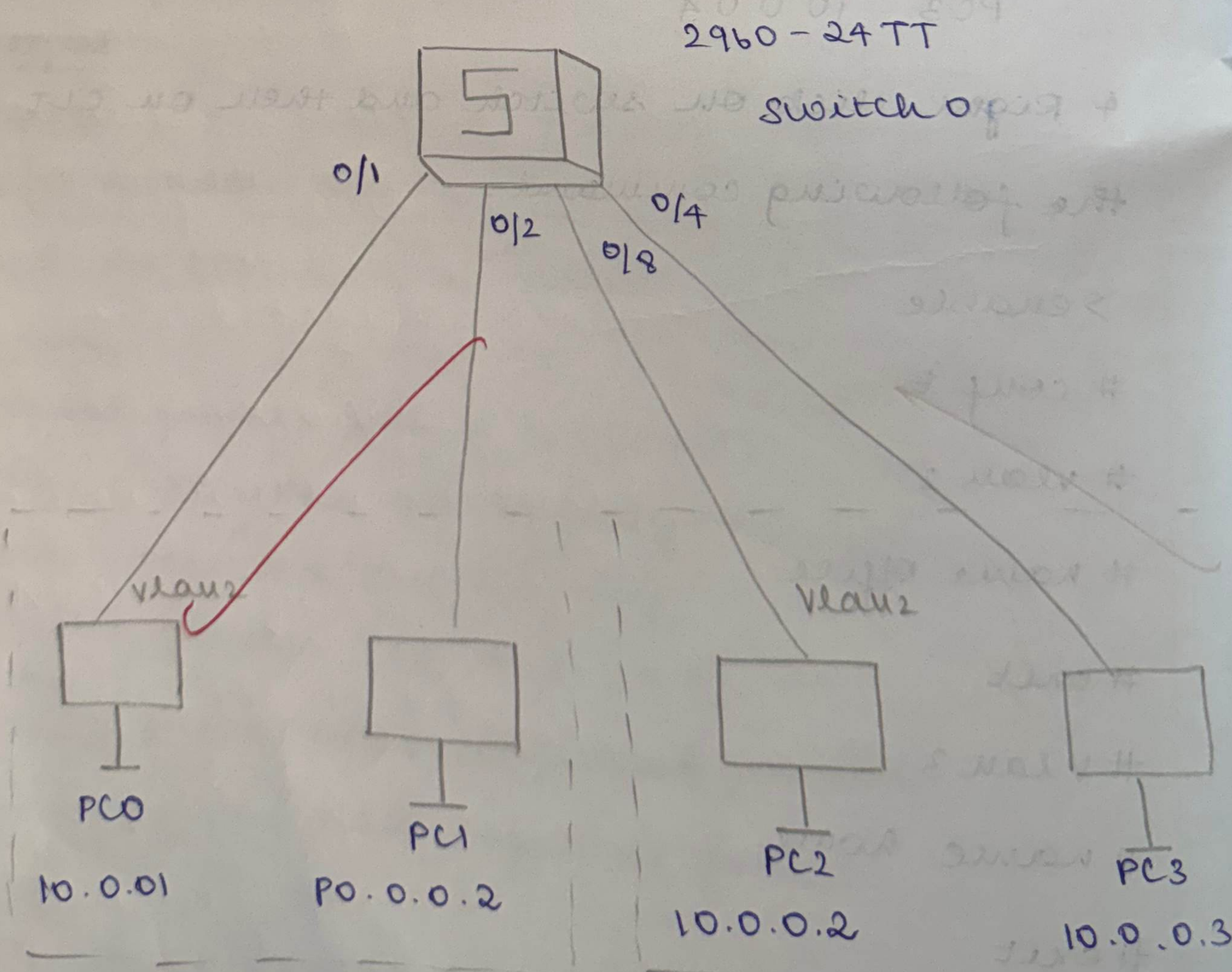
interface fastethernet 0/4

switchport access vlan3

exit

5. Now try pinging packet from PCs to one another

6. Diagramatic Representation



Observation

When packet transfered from PC0 to PC5 the packets are successfully transferred, similarly the PCs within same VLAN packets are transfered successfully whereas for PCs can't transfer packets out of its VLAN.

output:

Fire	Status	Source	Destination	type	Color	Time	Num
●	successful	PC0	PC1	ICMP	□	0.000	0
●	failed	PC1	PC2	ICMP	□	0.655	1

Result:

Thus the virtual LAN has been stimulated using ciscopacket trace.

13/9/24

EXERCISE 8b

Wireless LAN

AIM:

To configure wireless LAN using cisco packet tracer

procedure:

1. Create network 3PCs 2 a wireless Router
2. Right click 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

   .HYHOME Network

   → save setting

   → click on wireless security under wireless & change security mode to WCP from disabled.

   → Add key1: 0123456789

   → saveSettings.

→ 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

PC2 = 192.168.0.7

gateway = 192.168.0.1

5. Now click on PC0

→ click physical option

→ Turn off that

→ Drag the part in the diagram

→ to the left menu

→ Drag the 'WMP300N' to the part from the left.

→ Turn on that.

→ Now click on desktop → PC wireless

→ click connect → site information → connect

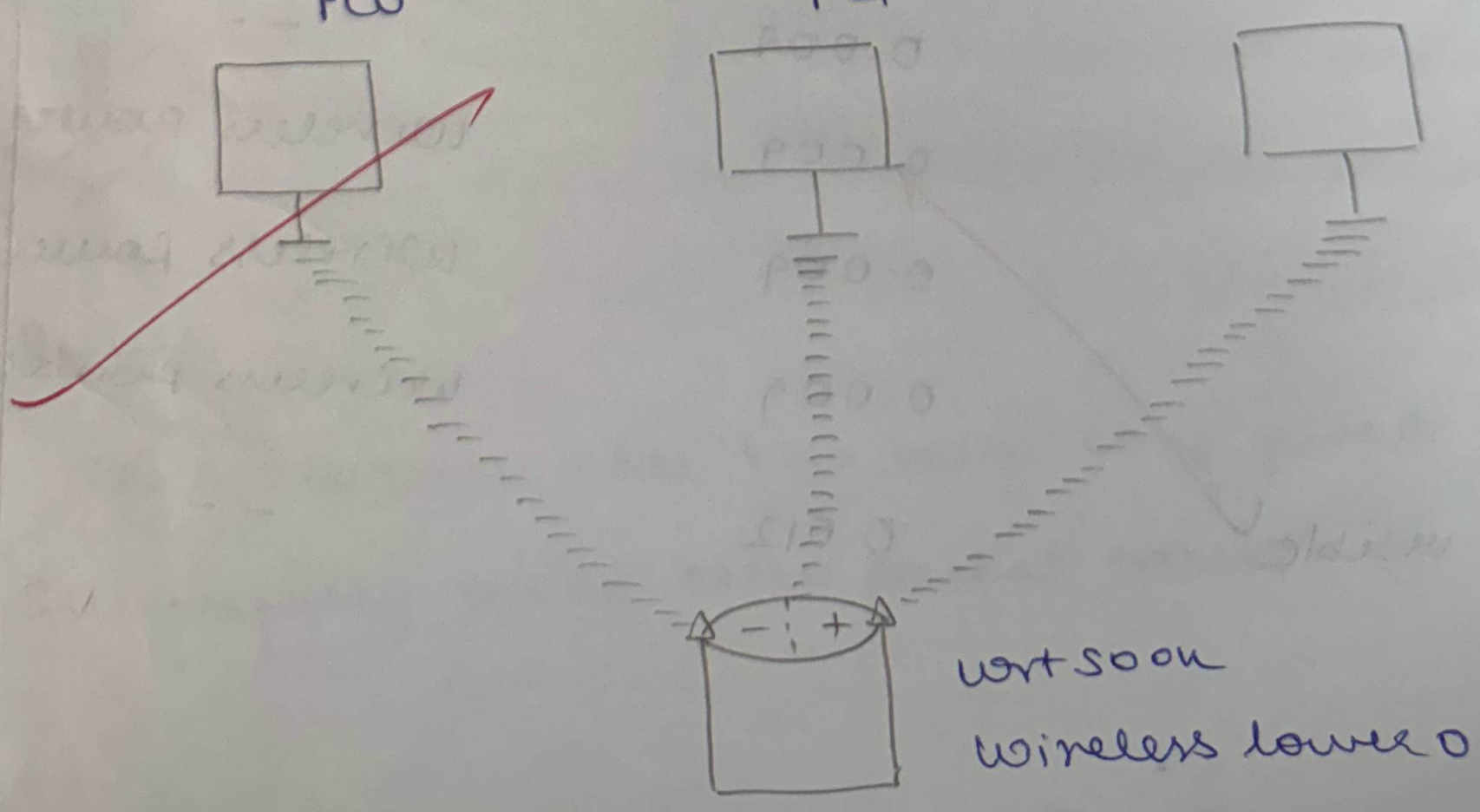
→ Type '0123456789' in the WEP key!

→ connect

6. Repeat step 5 for the PC1 & PC2

Then you can see the below connection in the network

Diagrammatic Representation



output

Thus the packets could be transmitted via wireless router

Fire	Status	Source	dest	Type	Color	Time	Period	N
○	successful	PC0	PC2	ICMP	□	0.000	N	0
○	successful	PC1	PC0	ICMP	□	0.566	N	1

Simulation panel

Event List

Vis	Time(sec)	Last Device
	0.000	--
	0.001	PC0
	0.003	--
	0.004	Wireless Router 0
	0.004	Wireless Router 0
	0.004	Wireless Router 0
	0.005	--
	0.006	PC2
	0.008	--
	0.009	Wireless Router 0
	0.009	Wireless Router 0
	0.009	Wireless Router 0
visible	0.012	--

Student obse

a) What is s

AWS service

assigned t

devices to

WEP

b) What is

Ans: A sec

to protect

authorised

WEP, WPA

Result:

Thus

success

mitted via

Time Period Num

.000 N 0

566 N 1

x

Device

Router 0

Router 0

Router 0

uter 0

ter 0

ter 0

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.

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:

Thus wireless LAN has been configured successfully using cisco packet-tracer.