INDEX

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NAME: _____ STD.: _____ SEC.: _____ ROLL NO.: _____ SUB.: _____

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Practical- 8.

Aim:

a). Stimulate Virtual LAN configuration using Cisco packet tracer simulation.

Packet tracer simulation- configure VLANs and Functing - physical mode topology

Device	Interface	IP address	Subnet mask	Default Gateway.
S1	VLAN1	192.168.1.11	255.255.255.0	N/A
S2	VLAN1	192.168.1.12	255.255.255.0	N/A.
PC-A	NIC	192.168.10.3	255.255.255.0	192.168.10.1
PC-B	NIC	192.168.10.4	255.255.255.0	192.168.10.1

objectives:

Part 1: Built the network and configure basic device setting

Part 2: Create the VLANs and assign switch ports.

part 3: Maintain VLAN port assignment and the VLAN database

part 4: configure an 802.10 trunk between the devices.

Instruction:

Part 1: Build the network and configure basic device settings.

Part 2

step 1: Build the network as shown in topology

a). Click and drag both switch S1 and S2

b). Click and drag both PC-A and PC-B to the table.

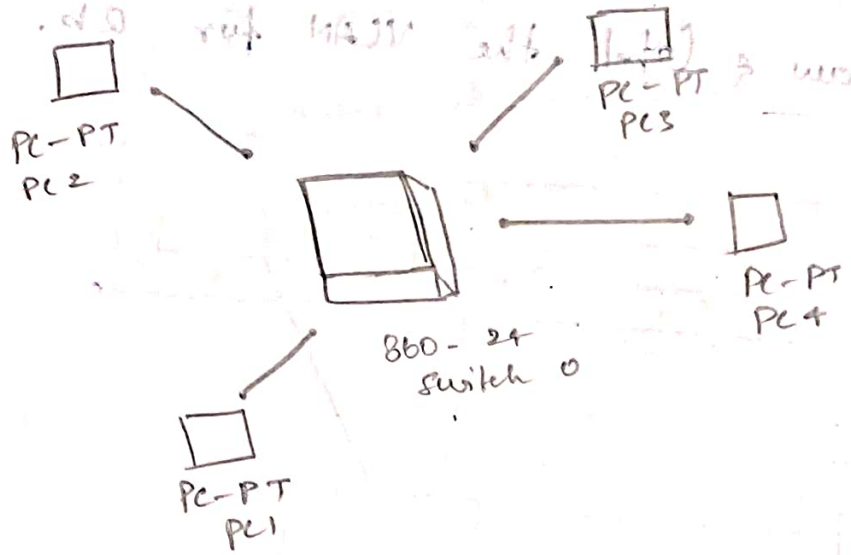
c). Provide network connectivity by connecting copper straight-through cables.

d) connect console cables from device PC-A S1 and from device PCB to S2.

step 2:- configure basic setting for each switch

a). from the design tab on each PC, use the terminal to console into each switch and enabled privileged EXEC mode.

b). Configure the settings.



Reflection questions:

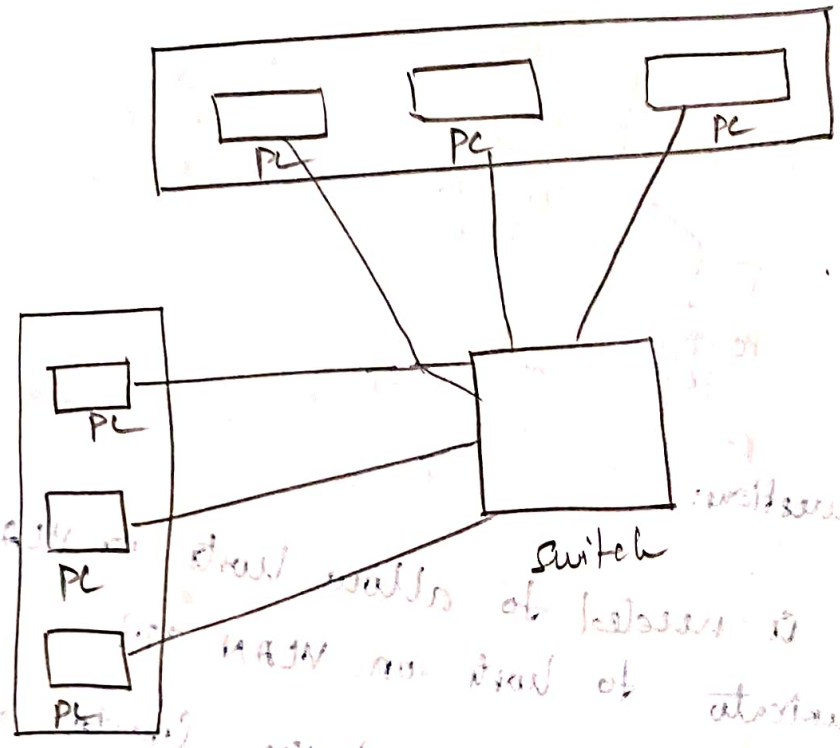
1). What is needed to allow hosts on VLAN 10 to communicate to hosts on VLAN 99?

You need a layer 3 device (router or layer 3 switch) to enable inter-VLAN routing and configure VLAN interfaces with IP addresses for both VLAN's. Ensure that ACLs allow traffic between VLANs and that hosts are set the appropriate default gateways.

2). What are some primary benefits that an organization can receive through effective use of VLANs?

Effective use of VLANs improve network segmentation enhancing security and reducing broadcast traffic.

a). Draw & Label the VLAN for Qb.



b). Show IP configuration for each device

	IP address	Subnet mask	Default gateway
PC1	192.168.20.2	255.255.255.0	192.168.20.1
PC2	192.168.20.3	255.255.255.0	192.168.20.1
PC3	192.168.20.4	255.255.255.0	192.168.20.1
PC4	192.168.20.5	255.255.255.0	192.168.20.1

c). Write the commands used for VLANs config in switch.

```
Switch > enable
Switch # configure terminal
Switch (config) # VLAN 10
Switch (config-VLAN) # name Robotics
Switch (config-VLAN) # exit
```

Switch (config-if-range) # switchport mode access

Switch (config-if-range) # switch port access VLAN 10

Switch (config-if-range) # exit

Result:

Thus the simulation of Virtual LAN configuration using cisco packet tracer has been performed & o/p is verified