Teacher Signature: _____

Student Registration No: _____

Lab Manual for Computer Communication and Networking

Lab No. 6

VLAN Trunking Protocol(VTP)

BAHRIA UNIVERSITY KARACHI CAMPUS
Department of Software Engineering

COMPUTER COMMUNICATION & NETWORKING

LAB EXPERIMENT # 6

VTP (Vlan Trunking Protocol)

OBJECTIVE: -

- This lab assignment helps in understanding how VTP (Virtual Trunking Protocol) can be configured on a Cisco switches.

EQUIPMENT: -
6. Ethernet Cable
7. Two Switches
8. Console Cable
9. Two PC's

THEORY: -

The basic objectives of VLAN Trunking Protocol (VTP) are to manage all configured VLANs across a switched internetwork and to maintain consistency throughout that network. VTP allows you to add, delete, and rename VLANs—information that is then propagated to all other switches in the VTP domain. Here's a list of some of the cool features VTP offers:

- Consistent VLAN configuration across all switches in the network.
- Accurate tracking and monitoring of VLANs.
- Dynamic reporting of added VLANs to all switches in the VTP domain.
- Plug and Play VLAN adding.

NETWORK TOPOLOGY: -
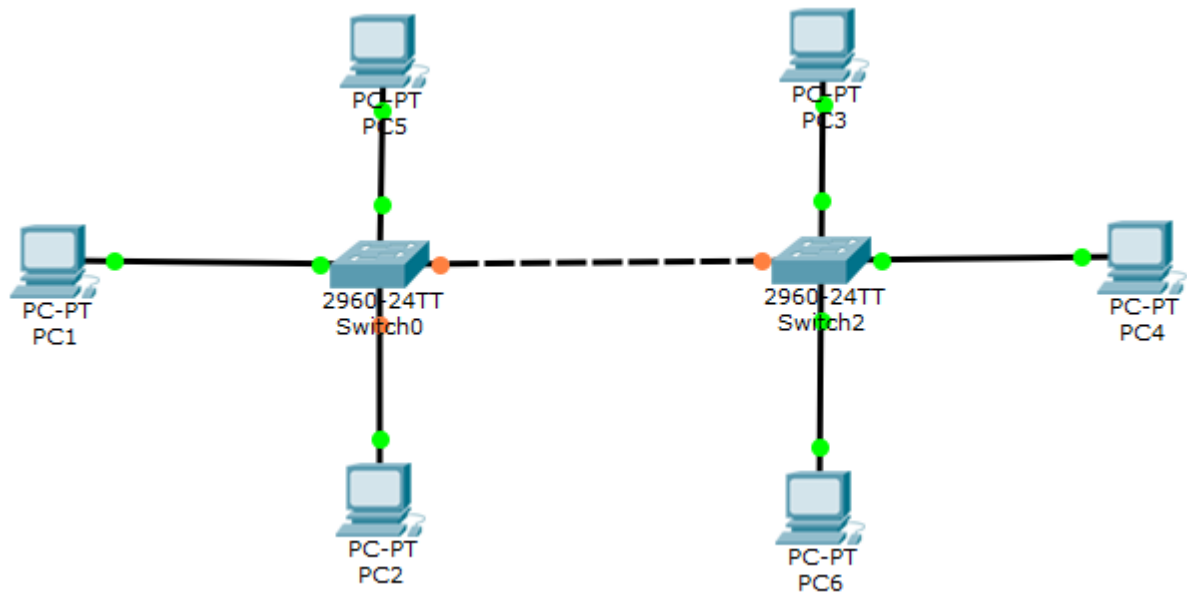
PROCEDURE:

Switch>en
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa0/3
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan 1-99
Switch(config-if)#end

VTP CONFIGURATION:
Switch# show vtp status
Switch(config#) vtp mode (server/client/transparent)
Switch(config#) vtp domain mydomain
Switch(config#) vtp password cisco

QUESTIONS: -

1. **Take 4 switches named as: A, B, C, D and connect them in alphabetical order. Perform and show the following configurations in your lab task:**

   a. Switch A with VLANs faculty and students having 1 logical port each.
   b. Now assign 1 logical port each to VLANs faculty and students in Switch B and D.
   c. Now make switch A in server mode, whereas B and D in client mode and switch C in transparent mode.
   d. Assign IP addresses to PCs connected to Switch A, B and D.
   e. Now ping within the same VLAN and outside the same VLAN and show your results.

TIME BOXING:

Activity Name	Activity Time	Total Time
Instruments Allocation + Setting up Lab	10 mints	10 mints
Walk through Theory & Tasks (Lecture)	60 mints	60 mints
Implementation & Practice time	90 mints	80 mints
Evaluation Time	20 mints	20 mints