NPS LAB EXPERIMENT-4

Objective: Construction of different VLANs and trunking using Cisco Packet Tracer.

Steps:

Step 1: Open **Cisco Packet Tracer** and create a new project.

Step 2: Drag two switches and three PCs into the workspace.

Step 3: Use automatic cables to connect the PCs and switches as follows:

- PC1 to Switch0 (FastEthernet 0/2)
- PC2 to Switch0 (FastEthernet 0/3)
- PC3 to Switch1 (FastEthernet 0/2)
- Switch1 to Switch0 (FastEthernet 0/1)

Step 4: Click on **Switch0**, go to the **CLI** tab.

Step 5: Enter the following commands in the CLI tab:

- Type en and press **Enter**.
- Type conf t and press **Enter**.

Step 6: Type hostname and assign a name to the switch (e.g., Switch0).

Step 7: To configure the interface connected to the PC, type:

- int fa0/2 (where the PC is connected to FastEthernet 0/2).

Step 8: Set the interface to access mode by typing:

- switchport mode access and press **Enter**.

Step 9: Assign the interface to VLAN 1 by typing:

- switchport access vlan 1 and press **Enter**.

Step 10: Configure trunking by typing:

- switchport mode trunk and press **Enter**.

Step 11: Assign IP addresses to each PC by going to their desktop and using **ipconfig**.

Step 12: Open the command prompt on each PC and type the ping command followed by the IP address of other PCs to test the network connection.

Step 13: Use the following commands on the switches to verify the VLAN and trunk setup:

- show vlan brief (to display VLAN information).
- show interfaces trunk (to display trunk status).