**Department of Computer Engineering**

**TE Computer-B (2024-25 Sem I)**

**Computer Networks and Security**

**CNS Simulation Assignment 1: VLAN Configuration**

**[CO1-CO2, BT: L3 (Apply)] [Max Marks: 10]**

**Date of Assignment 11th July 2025 Last Date of Submission: 21st July 2025**

**Instructions:**

**1.** Write down step by step configuration with screen shots and upload assignment report document in pdf format on Microsoft team before due date. Also upload .pkt files (Packet tracer file) (File name Eg; Roll\_Assg1.pdf and RollNo\_Ans1.pkt) **Also Submit hardcopy of assignment report to me on or before due date.**

2. IP Address Series will be based on your roll numbers. (192.168.Roll\_No.1 to 192.168.Roll\_No.254 Example: Roll No 20 will use 192.168.20.1 to 192.168.20.254)

**Assignment Questions:**

**Demonstrate of Virtual LAN (VLAN) using Packet Tracer [10]**

Ans: Include following points in output pdf document:

1. Network Topology (Steps and Screen Shot)
2. IP Address Configuration of PCs (Configuration Steps & Screen Shots)
3. Configure VLAN Database at Switch (Configuration Steps & Screen Shots)
   1. Use two VLAN Database
      1. Default VLAN1 Number: 1 (For IP address series 192.168.1.1 – 192.168.1.254)
      2. VLAN2 Number: Roll Number (Example Roll Number 7320 will use 20 as VLAN2 number and For IP address series192.168.Roll\_No.1 to 192.168.Roll\_No.254)
4. Configure Router (Configuration Steps & Screen Shots)
5. Ping Testing (Steps and Screen Shot)
6. Real Mode Simulation and Event Simulation (Steps and Screen Shots)

**For Reference visit:** <https://youtube.com/watch?v=WMbXgtxTrBY&si=Qgd_nTng5mm8HH2Z>

**Rubrics for Evaluation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Question No.** | **Criteria** | **Best** | **Good** | **Average** | **Poor** |
| **Q1** | Completeness [2] | Perfect [2] | Can be better [1.5] | Satisfied [1] | Incorrect [0] |
| Demonstration [4] | Perfect [4] | Can be better [3] | Satisfied [2] | Incorrect [0] |
| Documentation [4] | Perfect [4] | Can be better [3] | Satisfied [2] | Incorrect [0] |