School of Computer Science Engineering and Technology

LAB-3

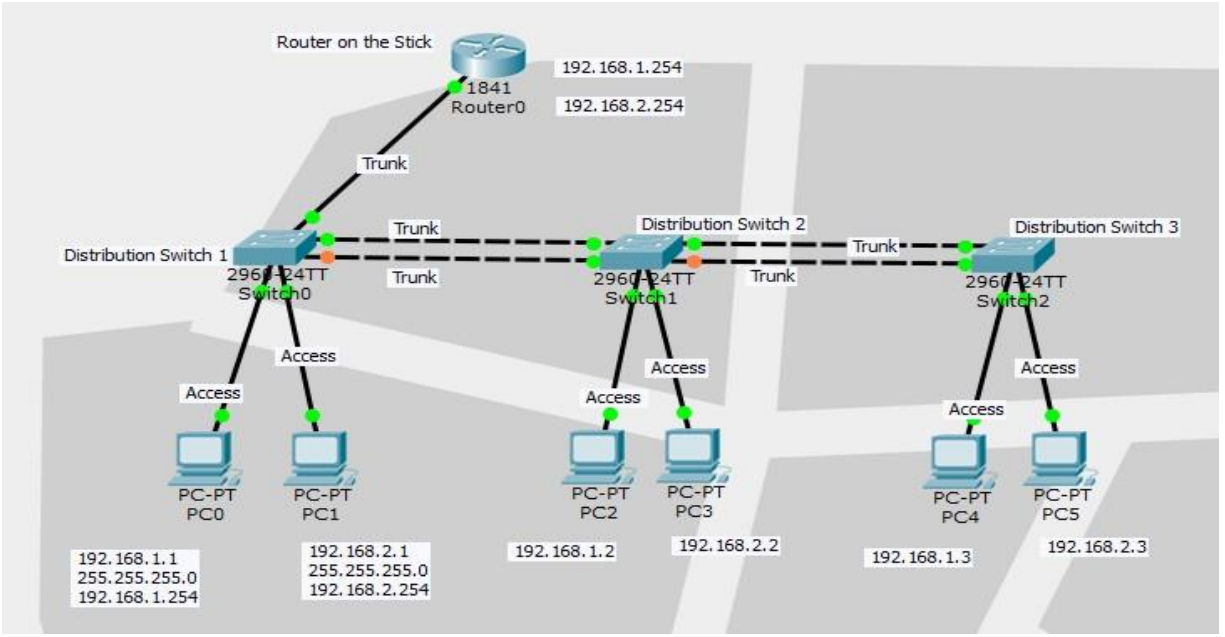
Program- B.Tech
Course Code- CSET 207
Year- II

Type- Core
Course Name-Computer Networks
Semester- IV, Batch-NA

Simulation No.	Name	CO-1	CO-2	CO-3
3	Design of Virtual LANs in Packet Tracer.	✔	✔	

Objective

An IT organization aims to organize devices into distinct broadcast domains across three networks NW1, NW2, and NW3. To achieve this, the IT team is responsible for configuring end devices using three switches, strategically assigning certain interfaces to specific broadcast domains. The objective is to establish virtual local area networks (VLANs) on each switch, acting as subgroups of switch ports within an Ethernet LAN. Connectivity between the three networks, consisting of six devices, will be facilitated through the implementation of VLAN Trunking Protocol (VTP), VLAN Tagging, Dynamic Trunking Protocol (DTP), Spanning Tree Protocol (STP), and Router on the Stick (VLAN Routing).



Task 1: Implement the following topology in network, and setting up VTP mode and domain.

Task 2: Connect these networks using switch network device by designing trucking protocol, tagging and dynamic trunking. Configure inter-VLAN routing using Router on the Stick method.

Task 3: Analyse the by sending PDU from one network to another when no truck point is established and when truck point are established.

Task 4: Understand simulation scenarios

Submission Guidelines:

a) The assignment must be verified by the instructor during the lab (Submission on LMS will only be considered once the working topology on Packet Tracer is verified). Submit the .pkt file along with the details in word/pdf in zipped format on LMS within 4 days.

b) Zipped file must be saved as per the format RollNo_Lab# (Example: E21CSE632_Lab1).

c) Write name and enrolment number inside the assignment file. Without it, your submission won't be considered for evaluation.

d) Provide labels for IP addresses, cabling and devices.

e) Submit the assignment in your respective batch's submission link in LMS. Submission in other batch's submission portal will not be checked.

f) Late submission will lead to penalty.

g) Plagiarism will lead to negative grading.