CSE 4512: Computer Networks Lab Quiz (1B)

Time: 60 minutes

Scenario

You are the IT Specialist in IUT and you have been given the task of network configurations. IUT has been assigned an IP address 192.168.X.0 where X is the last 2 digits of your Student ID. There are 2 academic buildings in IUT. In each building, there are PCs for teachers, students and administrators. There are 18PCs for teachers, 50PCs for students and 2PCs for admins in each of the buildings. There is a central router which connects the two buildings.

Task

Make a proper network configuration by taking into account the requirements mentioned below:
- Make a proper topology while keeping atleast 2 PCs for each group of people in each building.
- Make proper subnet masks to accommodate the required number of PCs for each group in each building.
- Building-1 is using RIP and Building-2 is using OSPF. Use redistribution to ensure proper connectivity.
- Configure VLANs for the groups and also Inter-VLAN routing.
- Make SPAN such that the teachers can track the activities of the students (just do it for the ports where you are connecting the two PCs).

You will be expelled from the exam if you are seen observing any unfair means. Using large language models is also prohibited.

This is an exam. No queries regarding the question will be entertained. You must follow the instructions and do the task as you understand.