



COMSATS University Islamabad, Lahore Campus
Sessional-II Examination – SPRING 2021

Course Title:	Data Communications & Computer Networks - Lab	Course Code:	CSC339	Credit Hours:	1
Course Instructor/s:	Muhammad Asad Mumtaz	Programme Name:	BS Computer Science BS Software Engineering		
Semester:	5 th	Batch	SP19	Section:	A, B, & C
Date:	18-05-2021				
Time Allowed:	60 minutes			Maximum Marks:	30
Student's Name:			Reg		
Important Instructions / Guidelines: <ul style="list-style-type: none">Read and attempt the exam paper (using packet tracer) carefully.During exam use of internet is prohibited.Cheating from other student(s) will be marked as ZERO and necessary action will be taken against you.					

Question 1:

[30 Marks]

Consider a network scenario of a company, which has four different departments with the following names and no. of hosts:

- Dept. Admin = 8 Hosts
- Dept. Sales = 14 Hosts
- Dept. Marketing = 20 Hosts
- Dept. Accounts = 16 Hosts

In this scenario, every department is configured on different VLAN that's why there is no inter-communicate between each department. However, intra-communication is possible. Now, your task is to make inter-communication possible between those departments using Inter-VLAN Routing.

Note: You'll apply IP address on each host of every department by using the VLSM subnetting technique. Moreover, you'll use your roll number in 2nd octet of each **Network ID**. For example, if you'll use a network ID "194.15.5.0" then the 2nd octet number (which is 15 here) will represent your roll number.

Submission Guidance:

You'll submit a zip folder with your **Registration ID** on google classroom. Your zip folder will consist of a **Packet Tracer File** and a **Word File** (with the **Cover page** and **Proper Formatting**).

In your word file, you'll provide the following data:

1. Screenshots of network scenario and PC/Laptops IP address configuration. (8 Marks)
2. Each subnet's (department) Name, Network ID, Host IDs, Broadcast ID, and Subnet Mask in a tabular format. (12 Marks)
3. Inter-VLAN Configuration Commands for every interface of router. (10 Marks)

Good Luck 😊