



**COMSATS Degree Programme**  
**COMSATS University Islamabad, Lahore Campus**

**Fall 2020**

**Sessional 2**

Course Title:	Data Communication and Computer Networks	Course Code:	CSC339	Credit Hours:	4(3,1)
Course Instructor/s:	Muhammad Junaid Anjum	Programme Name:	BS Software Engineering		
Semester:		Batch:	FA18-BSE-	Section:	A
Student's Name:		Reg. No.		Marks:	25
<b>1. Read the below instructions carefully</b>					
<b>2. No cheating. In case of caught, marks will be deducted</b>					
<b>3. You are to create the code in a single text file. DONOT use Word. Upload the final file to CUOnline</b>					

Question # 1: Consider a scenario where you are employed as a network designer for a local bank. You are to design a network in NS2 detailing the different departments communication with each other. Imagine that there are 3 departments with 10 computers each. The departments would be the following

- a) Accounts Department
- b) HR Department
- c) Finance Department

Based on the above scenario, you are to assume, as a network designer, what would be the source and the destination yourself.

You are to present the following in your network design code

- i) Design of a network [10]
- ii) Traffic Generation [5]
- iii) Link Failure Avoidance [5]
- iv) Graph representing the throughput of the network [5]