

# CL-3001: Computer Networks Lab

Serial No:

**Final Exam**

**Total Time: 2 Hours**

**Total Marks: 40**

Friday, 1<sup>st</sup> July, 2022

**Course Instructors**

Maham Haider

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Signature of Invigilator

\_\_\_\_\_  
Student Name

\_\_\_\_\_  
Roll No.

\_\_\_\_\_  
Section

\_\_\_\_\_  
Signature

**DO NOT OPEN THE QUESTION BOOK OR START UNTIL INSTRUCTED.**

**Instructions:**

1. Attempt on question paper. Attempt all of them. Read the question carefully, understand the question, and then attempt it.
2. No additional sheet will be provided for rough work. Use the back of the last page for rough work.
3. If you need more space, write on the back side of the paper, and clearly mark question and part number etc.
4. After asked to commence the exam, please verify that you have **thirteen (13)** different printed pages including this title page. There are a total of **3** questions.
5. Calculator sharing is strictly prohibited.
6. Use permanent ink pens only. Any part done using soft pencil will not be marked and cannot be claimed for rechecking.

	<b>Q-1</b>	<b>Q-2</b>	<b>Total</b>
<b>Marks Obtained</b>			
<b>Total Marks</b>	<b>20</b>	<b>20</b>	<b>40</b>

# National University of Computer and Emerging Sciences

FAST School of Computing

Spring-2022

Islamabad Campus

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## **Question 1 [30 Marks]**

Consider a scenario in which a network has three subnets and each subnet needs hosts as follows.

- Network A = 62 hosts
- Network B = 26 hosts
- Network C = 3 hosts

The network address of this network is **192.16.2.0**. Use VLSM to calculate subnet masks and assign IPs to all the networks dynamically through DHCP. The data packets should be sent to each other through OSPF routing.

## **Question 2 [10 Marks]**

Copy the above network in another file. In the copied network, add another PC in Network A. Configure the network in a way so that the new PC from Network A cannot communicate with Network C and vice versa.

*\*~\* Best of Luck \*~\**