


**National University of Computer and Emerging Sciences, Lahore
Campus**

	Course Name:	Computer Networks	Course Code:	CS 3001
	Program:	BS (Software Engineering)	Semester:	Spring 2025
	Duration:	15 minutes	Total Marks:	15
	Paper Date:	08-May-2025	Section	6A
	Exam Type:	Quiz 4 - Chapter 4	Page(s):	2

Student Name

Roll No.

Section:

Q1. Encircle the correct option:

[5 marks] [CLO 3]

1. Which of the following best describes DHCP (Dynamic Host Configuration Protocol)?

- a) It encrypts packets for secure transmission.
- b) It dynamically assigns IP addresses to hosts on a network.
- c) It manages packet routing between autonomous systems.
- d) It detects packet transmission errors at routers.

2. Network Address Translation (NAT) is primarily used for:

- a) Converting IPv4 addresses to IPv6 addresses.
- b) Managing domain names.
- c) Allowing multiple devices to share a single public IP address.
- d) Detecting corrupted packets in the data link layer.

3. Subnetting helps to:

- a) Increase the speed of physical data transmission.
- b) Reduce network congestion by segmenting larger networks into smaller subnetworks.
- c) Guarantee end-to-end reliability.
- d) Encrypt sensitive network data.

True/False Questions:

I. DHCP can allocate IP addresses dynamically, automatically, or manually, depending on the network administrator's settings. [T/F]

II. NAT modifies the source or destination IP addresses of packets as they pass through a router. [T/F]

Question 2:**[Marks 10] [CLO 3]**

A supernet has a first address of 205.16.32.0 and a supernet mask of 255.255.248.0. A router receives three packets with the following destination addresses:

205.16.37.44

205.16.42.56

205.17.33.76

Which packet belongs to the supernet?