National University of Computer and Emerging Sciences, Lahore Campus

	Course Name:	**Computer Networks**	**Course Code:**	**CS 3001**
	Program:	**BS (Computer Science)**	**Semester:**	**Fall 2023**
	Duration:	**15 minutes**	**Total Marks:**	**15**
	Paper Date:	**02-November-2023**	**Section**	**5K**
	Exam Type:	**Quiz 4 - Chapter 4**	**Page(s):**	**2**

Student Name **Roll No.** **Section:**

Q1. <u>Encircle the correct option:</u> **[5 marks] [CLO 3]**

1. The key function of the Network Layer's control plane is
   a) Error and Diagnostic Functions
   b) Routing Algorithms
   c) Forwarding / local per router function
   d) Routing / network wide logic

2. Match the classes of IP addresses with their functional applications

   Class A ---------- i) Multicast services

   Class B ---------- ii) Reserved for future use

   Class D ---------- iii) Large organizations

   Class E ---------- iv) Midsize Organizations.

   a) Class A — iv, Class B — iii, Class D — ii, Class E — i
   b) Class A — ii, Class B — iv, Class D — i, Class E — iii
   c) Class A — iii, Class B — iv, Class D — i, Class E — ii
   d) Class A — i, Class B — ii, Class C — iii, Class D — iv

3. The preferred approach taken for the transitioning from IPv4 to IPv6 is
   a) Flag days
   b) tunneling
   c) dual stack approach
   d) Transitioning not started

True/False:

1. VLSM is possible with both Classful and Classless IPv4 addressing schemes. [T / F]
2. The IP version 6 address consists of 16 octets. [T / F]

Q2. Consider a subnet with prefix 128.119.40.128/26. Give an example of one IP address (of form xxx.xxx.xxx.xxx) that can be assigned to this network. Suppose an ISP owns the block of addresses of the form 128.119.40.64/26. Suppose it wants to create four subnets from this block, with each block having the same number of IP addresses. What are the prefixes (of form a.b.c.d/x) for the four subnets? (**Note**: All answers should be in dotted decimal notation.) **[10 marks] [CLO 3]**