


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
	Quiz Date:	14-Sept-2023	Section	5J
	Exam Type:	Quiz 1 - Chapter 1	Page(s):	2

Student Name

Roll No.

Section:

Q1. Encircle the correct option:

[5 marks] [CLO 1]

- Which of the following is not a part of access network?
 - Edge Router
 - Server
 - Physical Media
 - Both (b) & (c)
- Which of the following delays are due to link properties?
 - Queueing & Transmission Delay
 - Propagation & Processing Delay
 - Propagation & Transmission Delay
 - Queueing & Processing Delay
- In which of the following a DSLAM is used
 - Edge Node
 - Cable Network
 - Optic Fiber
 - None of the above.

True/False:

- Transport Layer is implemented on a router. [T/F]
- Packet Switching uses Time Division Multiplexing. [T / F]

Q2. Assume that you are downloading an MP3 file of size 200 Mega bits ($1 \text{ Mega} = 10^6$). The transmission rate of server link is, i.e. R_s is 16 Mbps while transmission rate i.e., R_c of your access link is 4 Mbps. What is the required time to transfer the file considering that all delays except transmission delay are negligible? **[5 Marks] [CLO 1]**

Solution:

Q3.

(a) Which delay is directly proportional to the size of the packet? **[1 Mark] [CLO 1]**

(b) How long does a payload of 2 KB takes to propagate over a link of distance 1500 km, propagation speed 2.5×10^8 m/s, and transmission rate 4 Mbps? **[4 Marks] [CLO 1]**