

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL - 2023**

COMPUTER COMMUNICATION AND NETWORKS

[Maximum marks: 75]

(Time: 3 Hours)

PART A

I. Answer all the following questions in one word or one sentence. Each question carries 1 mark

(9 x 1 = 9 Marks)

		Module outcome	Cognitive level
1	List the components in a data communication system.	M1.01	R
2 number of channels required to connect 'n-nodes' in a mesh topology.	M1.02	U
3	List any two data link layer services.	M2.03	R
4	Define the term distortion in communication systems	M2.01	R
5	State True or False. Reliable file transfer applications uses TCP-based services.	M3.05	U
6	An IPv4 address contains address and address.	M3.01	R
7	The addressing scheme used in transport layer is called.....	M3.04	R
8	SMTP stands for.....	M4.03	R
9is the data port number used in FTP	M4.03	R

PART B

II. Answer any eight questions from the following. Each question carries 3 marks.

(8 x 3 = 24 Marks)

		Module outcome	Cognitive level
1	Write different data flow methods with examples.	M1.01	U
2	Write the advantages of the layered approach model in network designing	M1.03	U
3	Write a note on different types of transmission impairments.	M2.01	U
4	Differentiate Analog and Digital data.	M2.01	U
5	Define framing.	M2.04	U
6	List the services offered by network layer.	M3.01	U
7	Write a note on IPv6 addressing	M3.02	U
8	List the name and usage of any three application layer protocols	M4.01	U
9	List the SSH components.	M4.03	U
10	Define URL and the components of a URL.	M4.03	U

PART C

Answer all questions. Each question carries seven marks

(6 x 7 = 42 Marks)

		Module outcome	Cognitive level
III	Compare TCP/IP and OSI Models OR	M1.04	U
IV	Describe various network topologies.	M1.02	U
V	Describe the synchronous transmission mode. OR	M2.01	U
VI	Describe the concept of CSMA/CD	M2.05	U
VII	Describe the random access protocol, ALOHA OR	M2.01	U
VIII	Compare guided and unguided transmission.	M2.02	U
IX	Summarize the transport layer services. OR	M3.04	U
X	Explain the IPv4 addressing scheme	M3.01	U
XI	Compare the features of transport layer protocols – TCP & UDP. OR	M3.05	U
XII	Describe link state routing with its advantages and disadvantages.	M3.02	U
XIII	Describe the electronic mail protocol, SMTP with its merits and demerits. OR	M4.03	U
XIV	Illustrate the working of DNS	M4.03	U
