DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE – APRIL - 2024

COMPUTER COMMUNICATION AND NETWORKS

[Maximum Marks : 75]   [Time : 3 hours]

PART–A

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

(9x1=9 marks)

		Module Outcome	Cognitive level
1	List different data representation forms.	M1.01	R
2	OSI stands for…………….	M1.03	R
3	List any two random media access control protocols.	M2.05	R
4	Define the term attenuation in data communication.	M2.01	R
5	List any two unguided transmission methodologies.	M2.02	R
6	IPv6 is a …………bit addressing scheme.	M3.02	U
7	State True or False. Video chat applications use TCP-based services.	M3.05	U
8	List the components of a URL address.	M4.03	U
9	SSH stands for ……………	M4.03	R

PART B

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

(8x3=24 marks)

		Module Outcome	Cognitive level
1	Define data communication and list the elements in a data communication system.	M1.01	U
2	Prepare a comparative study of LAN and MAN.	M1.02	U
3	Define the term flow control.	M2.02	U
4	Write the advantages of twisting in a twisted pair cable.	M2.02	U
5	Prepare a comparative study of serial and parallel communication.	M2.01	U
6	Write a note on IPv4 addressing with an example.	M3.01	U
7	Write the need for routing.	M3.03	U
8	Write the ip-range and subnet mask for a subnet of 16 computers, including 192.168.1.21.	M3.01	U
9	Write about the peer-to-peer network paradigm.	M4.02	U
10	Write about the Domain Name System.	M4.03	U

PART C

Answer **all** questions from the following. Each question carries 7 marks.

(6x7=42marks)

		Module Outcome	Cognitive level
III	Briefly describe the layered concept of the OSI model with a neat diagram.	M1.03	U
	OR		
IV	Summarize protocols in TCP/IP protocol suite.	M1.05	U
V	Describe stop and wait protocol with a neat diagram.	M2.04	U
	OR		
VI	Write a note on framing and various methods used in framing.	M2.03	U
VII	Differentiate CSMA/CD and CSMA/CA.	M2.05	U
	OR		
VIII	Write a note on optical fiber communication.	M2.02	U
IX	Differentiate TCP and UDP services.	M3.05	U
	OR		
X	Draw the IPv6 basic header format and explain the components.	M3.02	U
XI	Describe the distance vector routing method.	M3.03	U
	OR		
XII	Compare IPv6 and IPv4 addressing schemes.	M3.02	U
XIII	Illustrate FTP basic model and state its merits and demerits.	M4.03	U
	OR		
XIV	Describe HTTP persistent connections.	M4.03	U

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