

[Time:2.30 Hrs]		[Marks:75]
Please check whether you have got the right question paper.		
N.B:	1. All question are compulsory. 2. Figures to the right indicate full marks. 3. Students answering in the regional language should refer in case of doubt to the main text of the paper in English.	

Q.1	Answer the Following: (Any 4) a) What are the differences between half-duplex and full-duplex transmission mode? b) Explain the Transmission Impairments. c) State the advantages of Optic Fiber Cable over Twisted-pair and Coaxial Cables. d) State and explain the layers of TCP/IP Model. e) Explain the Wavelength Division Multiplexing and Time Division Multiplexing. f) List and explain the components of Data Communication Systems.	20
Q.2	Answer the Following: (Any 4) a) What is Analog Signal? Explain the types of Analog-to-Analog Conversion b) Write a note on Address Resolution Protocol (ARP). c) Explain Cyclic Redundancy Check (CRC) d) Write a note on Packet Switching. e) A period of a signal is 100 ms. Calculate the Frequency in kilohertz. f) Explain Serial transmission and Parallel Transmission	20
Q.3	Answer the Following: (Any 4) a) Explain CSMA/CD. b) State the difference between TCP and UDP. c) Explain the Packet format of IPv4 Addressing. d) Write a note on Switches and Routers. e) Explain Distance-vector Routing. f) What is the difference between random and controlled access?	20
Q.4	Answer the Following: (Any 3) a) Write short note on Connectionless Vs Connection Oriented Service. b) Explain Pulse-Code Modulation. c) Explain Polling. d) Write a note on Wide Area Network. e) Define the Following terms: a. Bit Rate b. Frequency	15

		<p>c. Latency</p> <p>d. Period</p> <p>e. Bandwidth</p> <p>f) Explain the responsibilities of Data-Link Layer.</p>	
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