

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2024****Subject Code:3143201****Date:21-11-2024****Subject Name: Data Communication & Computer Networks****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	MARKS
Q.1 (a) Define following terms: ASK, FSK and PSK..	03
(b) Write Full Form: CRC, HDLC, TCP, UDP, OSI and	04
(c) Explain CRC with example.	07
Q.2 (a) Draw and explain UDP Header.	03
(b) Differentiate IEEE standards 802.4 and IEEE standards 802.5.	04
(c) Draw and explain ATM Layers.	07
OR	
(c) What is Delay? List and Explain Types of Delays.	07
Q.3 (a) Briefly differentiate GO Back N & Selective Repeat Protocol.	03
(b) Explain CSMA/CD and CSMA/CA in detail.	04
(c) Draw header structure of IPv4 and explain all the fields in detail.	07
OR	
Q.3 (a) Write a short note on SNMP.	03
(b) What is HTTP? Explain Types of HTTP Connections.	04
(c) Write a note on High Level Data Link Control (HDLC).	07
Q.4 (a) What is Symmetric key Algorithms	03
(b) How congestion occurs in a network?	04
(c) Differentiate DES and AES.	07
OR	
Q.4 (a) What is the use of FTP?	03
(b) What is network topology? Explain the different network topologies.	04
(c) What is multiplexing? Explain in detail about various types of multiplexing.	07
Q.5 (a) Explain in details about Go-Back-N ARQ.	03
(b) Explain sliding window protocol.	04
(c) Explain the distance vector routing with suitable example.	07
OR	
Q.5 (a) Define : 1) Electronic Mail (SMTP)	03
2) FTP	
3) SNMP	
(b) What is Firewall.	04
(c) Why ipv6 is preferred over ipv4?	07