

**Question Paper Code: 94806A**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2021

Fourth Semester

Information Technology

19UIT406– COMPUTER NETWORKS

(Regulation 2019)

Duration: 1 :45 hours

Maximum: 50 Marks

PART A (5 X 10 = 50 marks)

ANSWER ALL THE QUESTIONS

1.a. Apply the concept of Time division multiplexing in the telephone network systems with the neat diagram. Apply

OR

1.b. Apply the concept of infrastructure with the proper diagram and justify the working of infrastructure with an example. Apply

A bit stream 10011101 is transmitted using the standard CRC method. The generator polynomial is  $x^3+1$ .

2.a. 1. What is the actual bit string transmitted? Apply  
2. Suppose the third bit from the left is inverted during transmission. How will receiver detect this error?

OR

2.b. Apply any one of the concept of Sliding Window Protocols to improve the efficiency of the network and describe the workflow with necessary diagrams Apply

3.a. The sender is a router and received a datagram destined for a host on another network, Use ARP to find the next router's physical address. Apply

OR

3.b. Apply the concept of BOOTP to demonstrate the situations  
i) Client and Server on same networks Apply  
ii) Client and Server on different networks

4.a. Apply the steps involved in leaky bucket algorithm for traffic shaping or traffic policing in a telecom networks to improve the quality of service Apply

OR

4.b. Apply the concept of TCP in the client server network to ensure the successful delivery of data over the internet with proper example Apply

5.a. Apply the steps involved in fixing the problem of sending or receiving email Using IMAP Apply

OR

5.b. Apply the steps involved in TELNET to enable the telnet client for the windows Apply