

FACULTY OF ENGINEERING**B.E. VI – Semester (AICTE) (CSE) (Main) Examination, October 2021****Subject: Computer Networks****Time: 2 Hours****Max marks: 70****Missing data, if any, may be suitably assumed****PART – A****Note: Answer any five questions.****(5x2=10 Marks)**

1. State the difference between Protocol and Service
2. List the different addresses in TCP/IP protocol and the layers they correspond to
3. Define Hamming distance. Compute the Hamming distance between the words 10101 and 11011.
4. State the differences between 1-persistent, non-persistent and p-persistent CSMA protocols.
5. Translate the following IPv4 addresses into Dotted Decimal notation and tell the IPv4 class to which they belong.
 - a) 01111111 11110000 01100111 01111101
 - b) 11101111 11110111 11000111 00011101
6. State the purpose of Tunnelling
7. What are the elements of transport layer?
8. Define the four flow characteristics
9. Define the purpose of MIME
10. State the five services provided by Network Security

PART - B**Note: Answer any four questions.****(4x15=60Marks)**

11. a) Explain the ISO/OSI reference model layer functions with a neat diagram.
b) Compare the two TDM multiplexing techniques with example
12. a) Use the CHECKSUM method for error detection to calculate the checksum for the following for the following five 4-bit datawords (7,11,12,0,6) sent by a sender to receiver.
b) Distinguish between Go-Back-N and Selective – Repeat ARQ protocols.
13. a) Explain the IPv4 Header with the help of a neat diagram. State two differences IPv6 has in comparison to IPv4
b) Explain Distance Vector Routing algorithm with a suitable example
14. a) Discuss the purpose of various fields of the TCP segment header.
b) Explain the Leaky Bucket mechanism used for traffic shaping and how it differs from token bucket.

15a) Write short note on DNS.

b) Explain RSA public key encryption algorithm with a suitable example.

16, a) Compare the different XDSL types.

b) Discuss CSMA/CD multiple channel access protocol.

17. a) Write about Open Shortest Path First gateway protocol.

b) Differentiate between SMTP, POP3 and IMAP protocols.

OU - 1609 OU - 1609