



School: School of Engineering and Technology
Program/s: Computer Science and Engineering
Year: 3rd **Semester:** V
Examination: End Semester Examination
Examination year: December - 2021

Course Code: CS308 **Course Name:** COMPUTER NETWORKING

Date: 02/12/2021

Time: 11:30 am to 01:30 pm

Total Marks: 40

Total Pages: 02

Instructions:

- Write each answer on a new page.
 → Use of a calculator is permitted/not permitted

Q. No.	Details	Marks	COs*	BTL#
Q.1	<p>Attempt all objective based questions.</p> <p>(i) The functions of a Logical Link Layer (LLC) are ____. a) Error control b) Flow control c) Creating and managing the communication link between two devices with the help of the Transport layer. d) All the above</p> <p>(ii) The data link layer takes the packets from _____ and sends them into frames for transmission. a) application layer b) physical layer c) network layer d) all of the above</p> <p>(iii) CRC abbreviated as a) code redundancy check b) code repeat check c) cyclic redundancy check d) cyclic repeat check</p> <p>(iv) Multiple access protocol for channel access control a) CSMA/CA b) CSMA/CD c) Both a&b d) None of the mentioned</p> <p>(v) _____ size in the IPv4 header. a) 60 bytes long b) 20 bytes long c) 20 to 60 bytes long d) none of the above</p> <p>(vi) FTP stands for.....? a) Form transmission protocol b) File transmission protocol c) File transfer protocol d) Form transfer protocol</p> <p>(vii) Select the size of the Source and Destination IP address in the IP header. a) 4 bits b) 16 bits c) 32 bits d) 8 bits</p>	10	CO 1 CO 2 CO 3 CO 3 CO 3 CO 3 CO 3	BTL 1 BTL 2 BTL 1 BTL 2 BTL 1 BTL 1 BTL 1

	<p>(viii) Which of the following are transport layer protocols used in networking? a) TCP and FTP b) UDP and HTTP c) TCP and UDP d) HTTP and FTP</p> <p>(ix) The network layer is concerned with _____ of data. a) bits b) frames c) packets d) bytes</p> <p>(x) A 4 byte IP address consists of _____ a) only network address b) only host address c) network address & host address d) network address & MAC address</p>		CO 1	BTL 1
			CO 1	BTL 2
			CO 3	BTL 2
Q.2	Attempt All questions. (i) PDU stands for..... (ii) PPP stands for..... (iii) Digital to Analog Conversion techniques name..... (iv) Random access protocols categories..... (v) Layer 2 device names.....	5	CO 4	BTL 1
			CO 3	BTL 1
			CO 2	BTL 1
			CO 3	BTL 1
			CO 5	BTL 3
Q.3	Attempt any five (i) Write Line coding techniques.Explain any two techniques. (ii) Write the Data link layer services. How ARP Protocol work in Data link layer? (iii) Explain the TCP and UDP header with diagram. (iv) A bit stream 10011101 is transmitted using the standard CRC method .The generator polynomial is x^3+1 (a) What is the actual bit string transmitted? (b) Suppose the third bit from the left is inverted during transmission.How will receiver detect this error? (v) Write the difference between pure aloha and slotted aloha (vi) Explain the IPv4 header format. (vii) Explain the Routing. Write different types of routing in network layer.	25	CO 2	BTL 2
			CO 5	BTL 3
			CO 3	BTL 2
			CO 3	BTL 5
			CO 4	BTL 4
			CO 3	BTL 2
			CO 3	BTL 2

*****End of Question Paper*****