SCAN ME

VIT
Vellore Institute of Technology

SLOT - B2

SCHOOL OF INFORMATION TECHNOLOGY AND ENGINEERING

CONTINUOUS ASSESSMENT TEST – I

WINTER SEMESTER 2019-2020

Programme Name & Branch: B.Tech - Information Technology (IT)

Course Code: ITE3001

Course Name: Data Communication and Computer Networks

Faculty Name: Dr. G. RAJARAJAN

Class Number: VL2019205004501 **Exam Duration:** 90 mins **Maximum Marks:** 50

General instruction(s):

Answer ALL Questions.

Sl.No.	Question	Marks (M)
1. (a)	Represent the following bit patterns in Differential Manchester Encoding. (i). 0101010 (ii). 0011001 (iii). 0111110	(3M)
1. (b)	Compare and contrast the similarities and differences of OSI and TCP/IP model.	(7M)
2. (a)	Convert the following into MAC address representation. 00000111000000010000001000000001001011000100101l.	(3M)
2. (b)	Compare the merits and demerits of different kinds of network topology.	(5M)
2. (c)	Why the pairs of wires are twisted in guided medium instead of separate parallel wires?	(2M)
3. (a)	Suppose node A wants to send data to node D. How many times the information should pass through Data Link Layer in the following scenario from A to D? Justify your answer  	(5M)
3. (b)	Say True or False for the following: (i). Data Link Layer uses IP addressing F (ii). Network Layer uses Port Addressing F (iii). Transport Layer uses MAC addressing F (iv). MAC address can also be called as logical address F (v). IP address can also be called as Physical address. F	(5M)
4.	Explain the concept behind framing and its types with diagrams and needful examples.	(10M)
5.	Given the dataword 1010011110 and the divisor 10111, a. Show the generation of the codeword at the sender side (using binary division). b. Show the checking of the codeword at the receiver side (Assume no error)	(10M)