Printed Page – 3 Roll No. .....

328632(28)

B. E. (Sixth Semester) Examination, 2020

(Old Scheme)

(ET & T, Mechatronics Engg.)

COMPUTER NETWORK

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : *Attempt all questions. Part (a) from each question is compulsory. Attempt any two parts from parts (b), (c) and (d) of each question.*

Unit-I

1. (a) What is Null Modem? 2

(b) What do you mean by topology of network?

Compare advantages and disadvantages of different topologies. 7

(c) What is OSI reference model? Explain the function of each layer in short. 7

(d) Compare UTP and STP cable 7

Unit-II

2. (a) Define CRC. 2

(b) An 8-bit byte with binary value 10101111 is to be encoded using an even-parity hamming code. What is binary value after encoding? 7

(c) Explain the flow control mechanism in data link layer. What is the need of flow control. 7

(d) How many types of frames HDLC uses? Explain with their frame format. 7

Unit-III

3. (a) What is a rule added to convert CSMA to CSMA/CD. 2

(b) Compare ethernet, token bus and token ring. 7

(c) Explain FDDI in detail. 7

(d) Explain in detail IEEE 802·3 by access method. 7

Unit-IV

4. (a) What is header overhead in IP protocol? 2

(b) Explain TCP operation. What is TCP header format. 7

(c) Explain different types of IP address format. For the address 132·7·21·84 find the type of network and network address. 7

(d) Explain the function of network layer (including its services). 7

Unit-V

5. (a) What types of transmission media are used in LANs. 2

(b) Explain high speed LANs. 7

(c) Explain 100 VG-Any LAN. 7

(d) Explain fast ethernet system and compare various forms of it. 7