DCCN QUESTION SET-1(4TH SEM AE&I Department)

1. Answer all the questions. (UNIT I- 2marks each)

   a. What is data communication? Explain its components.
   b. Differentiate between AM and FM. Which travel farther?
   c. What is network? List down the different types of computer networks.
   d. Write down the two applications and two advantages of computer network.
   e. Differentiate between Bit rate and Baud rate. State the relation between them.
   f. What are the disadvantages of using NRZ?
   g. What is CSMA?
   h. What do you mean by Synchronous and Asynchronous TDMA?
   i. What are transmission errors?
   j. What is X.25? State its significance.

(UNIT II -5marks each)

2. Answer any six.

   a. Draw a coaxial cable with clear labeling and explain its working with its applications.
   b. Briefly explain all the advantages and disadvantages of fiber optic cable.
   c. Differentiate between OSI and TCP/IP model.
   d. What do you mean by Protocol? Explain its key elements. Also describe its applications.
   e. List down the functions of different layers of OSI model.
   f. Describe intermodulation noise and impulse noise.
   g. Explain and draw the graph of following line coding schemes:- i) NRZ ii)NRZI iii)Bipolar

(UNIT III- 10 marks each)

3. Answer any three.

   a. What is multiplexing? List different types of multiplexing techniques possible for signals with neat diagram.
   b. Explain the following: i) TCP/IP architecture ii) Congestion control mechanisms with their applications.
   c. Write short notes on: i) Bridges ii) Hub iii) Switch
   d. What is Topology? Explain all the possible topologies of computer network with neat diagram.

DCCN QUESTION SET-2(4TH SEM AE&I Department)

1. Answer all the questions. (UNIT I- 2marks each)

a. What are IEEE standards for LAN?
b. Explain Routing and Switching.
c. Differentiate between Analog and Digital data.
d. Differentiate between synchronous and asynchronous transmission.
e. Compare guided transmission and unguided transmission.
f. Define error. State its types.
g. Define topology. List any two types of topology with neat diagram.
h. List the applications of Data link layer and Physical layer.
i. Compare IPV4 and IPV6.(Any four points)
j. What is a modulator? Why it is used?

(UNIT II -5marks each)

2. Answer any six.

a. Draw the encoding scheme for the bit stream: 0001110101 using i) NRZI ii) Manchester coding iii) Differential Manchester coding.
b. What is scrambling? Explain B8ZS and HDB3 taking the bit stream as: 1100000000011000001.
c. Explain ASK and FSK encoding scheme with their encoding process. Draw the graph also.
d. Explain Synchronous and Asynchronous Transmission. What is the need of synchronization?
e. What is Flow control? Explain Stop and wait flow control scheme with neat diagram.
f. Explain Time Division Multiplexing. State its types also.
g. What is line configuration? Briefly explain its types.

(UNIT III- 10 marks each)

3. Answer any three.

a. What is multiplexing? List different types of multiplexing techniques possible for signals with neat diagram.
b. What is Topology? Explain all the possible topologies of computer network with neat diagram.
c. Draw a neat diagram of twisted pair cable and explain its working. State its applications.

d. Explain the encoding process for converting analog data to digital signal with neat diagram.