

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER-2020

DATA COMMUNICATION

[Maximum marks: 75]

(Time: 2.15 Hours)

PART – A

I (Answer any *three* questions in one or two sentences. Each question carries 2 marks)

1. List any two network attributes.
2. Why standards are needed in data communication?
3. Define band width
4. Draw a switched network and label it
5. What is piggybacking?

(3 x 2 = 6)

PART – B

II (Answer any *four* of the following questions. Each question carries 6 marks)

1. List different data representation forms. Explain any three.
2. Write short note on network models.
3. Explain Time Division Multiplexing
4. Differentiate between ASK & FSK
5. Explain Circuit switched network with neat diagram
6. Draw the structure of packet switch and write the function of each part
7. List the type of frames in HDLC? Explain the frame format

(4 x 6 = 24)

PART – C

(Answer *any of the three units* from the following. Each full question carries 15 marks)

UNIT –I

III.(a) With neat diagram explain about the components of data communication. (6)

(b) Briefly explain different data flow methods (9)

OR

IV. (a) Compare mesh and star topology with neat diagram (8)

(b) Draw ISO/OSI model. Explain two bottom most layers (7)

UNIT-II

- V. (a) Explain transmission impairments (8)
(b) With neat diagram explain Frequency Division Multiplexing (7)

OR

- VI. (a) Explain serial and parallel transmission modes (7)
(b) Explain PCM with neat diagram (8)

UNIT-III

- VII.(a) With neat sketch explain coaxial Cable (6)
(b) Explain characteristics of radio waves (9)

OR

- VIII.(a) Explain about the construction of Time division switch (8)
(b) Explain datagram approach used in switching (7)

UNIT-IV

- IX. (a) Explain error control and flow control (8)
(b) Describe stop and wait protocol. (7)

OR

- X. (a) What are the services provided by PPP? Explain it's frame format (9)
(b) Explain random access protocols to handle access to a shared link. (6)
