

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2021**

DATA COMMUNICATION

[Maximum Marks: 75]

[Time: 2.15 Hours]

PART-A

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

I.

1. What is Jitter?
2. State the use of a Hub.
3. Define Frequency.
4. What is a Datagram?
5. What is Burst-error? (3×2=6)

PART-B

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

II.

1. Discuss the different Data Flow methods.
2. Compare Point-to Point and Multi-point connection.
3. State and explain the Transmission Impairments.
4. Brief on Amplitude Shift Keying.
5. State the advantages of Fiber Optic Cables.
6. State the different methods of Switching.
7. Brief on forward error correction methods. (4×6=24)

PART-C

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

UNIT-I

- III. (a) Explain on the Components of Data Communication. (8)
(b) Describe the functions of layers in OSI model. (7)

OR

- IV. (a) Discuss the different physical topology of networks. (8)
(b) Compare LAN, WAN and MAN. (7)

UNIT – II

- V. (a) Explain the steps to convert Analog Signal to Digital data. (8)
(b) Explain on Multiplexing. (7)

OR

- VI. (a) Explain on Binary Data Transmission Modes. (8)
(b) Explain the Frequency Modulation. (7)

UNIT – III

- VII. (a) Explain about Twisted pair cables. (8)
(b) Explain the Propagation methods used in Wireless Communication. (7)

OR

- VIII. (a) Explain on Circuit switched networks. (8)
(b) Describe Micro Waves. (7)

UNIT – IV

- IX. (a) Explain the concepts of CRC. (8)
(b) Compare Simple with Stop and wait Protocol. (7)

OR

- X. (a) Describe the different techniques used in Framing. (8)
(b) State the different frames used in HDLC. (7)
