TED (15/19) 4132

(Revision-2015/19)

A22-00627

Reg.No............................

Signature.........................

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL-2022

DATA COMMUNICATION

[Maximum marks: 100]

(Time: 3 Hours)

PART – A
Maximum marks : 10

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

1. List any four components of data communication.
2. Define bit rate.
3. List the names of antennas used for microwave communications.
4. What is meant by burst error ?
5. Define byte stuffing. (5 x 2 = 10)

PART – B
Maximum marks : 30

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

1. Explain data flow methods.
2. Compare baseband transmission and broadband transmission.
3. List advantages and disadvantages of using optic fiber cable.
4. Explain point to point protocol.
5. Explain categories of networks.
6. Explain Amplitude Shift Keying with the help of a neat diagram.
7. Compare circuit switched networks and packet switched networks. (5 x 6= 30)

PART – C
Maximum marks : 60

(Answer one full question from each unit. Each full question carries 15 marks)

UNIT –I

III. (a) Outline different network attributes. (6)

(b) Explain data representation of text, numbers, images, audio and video. (9)

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OR

IV. Explain the functions of each layer in ISO OSI model with the help of a neat diagram.   (15)

UNIT-II

V. (a) Explain different transmission impairments.   (6)

    (b) Explain Pulse Code Modulation with the help of a neat diagram.   (9)

OR

VI. (a) Explain Frequency Modulation (FM) with the help of a neat diagram.   (6)

    (b) Explain three types of multiplexing.   (9)

UNIT-III

VII. (a) Explain about twisted pair cable.   (6)

    (b) Explain about coaxial cable and any three coaxial cable connectors.   (9)

OR

VIII. Explain any three un-guided transmission media.   (15)

UNIT-IV

IX. (a) Explain Cyclic Redundancy Code.   (6)

    (b) Explain HDLC.   (9)

OR

X. List and explain random access protocols.   (15)

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