TED (15/19) 4132
(Revision-2015/19)

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, NOVEMBER - 2024

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 the components of Data communication.
2. Write about periodic signals.
3. Define bandwidth.
4. List the advantages of optical fibre.
5. Define flow control. **(5 x 2 = 10)**

PART – B
Maximum marks: 30

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

1. Describe data flow methods.
2. List and explain network attributes.
3. Compare serial and parallel mode of transmission.
4. Write about wireless propagation methods with figure.
5. State the characteristic features of microvaves.
6. Describe character oriented type of framing.
7. State the services provided by point to point protocol. **(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. Explain the functions of physical, datalink, network & transport layer with neat diagram of ISO OSI reference model. (15)

OR

IV. Explain network topologies with figure and state its merits & demerits. (15)

UNIT – II

V. (a) Explain Pulse Code Modulation (PCM). (9)

(b) Explain synchronous serial transmission with figure. (6)

OR

VI. Explain different types of multiplexing techniques with neat diagram. (15)

UNIT - III

VII. Explain guided media with neat diagram. (15)

OR

VIII. Explain the structure of space division switch with figure. (15)

UNIT – IV

IX. Explain data link layer protocols for flow and error control in noiseless channels. (15)

OR

X. Explain HDLC protocol in data link layer. (15)
