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

N21-00840

Reg.No.....
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, NOVEMBER-2021

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. State the fundamental characteristics that determine the effectiveness of Communication.
2. Define Baseband Transmission.
3. List any two guided transmission media.
4. Define Harming distance between two words.
5. Define bandwidth. (3 x 2 = 6)

PART – B

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

1. Differentiate point to point multipoint connections.
2. Explain FDM.
3. Explain the physical structure and working principles of twisted pair cable.
4. Explain different random access protocols.
5. Explain any three physical topologies of computer networks with neat diagrams.
6. Explain periodic analog signals.
7. What are the advantages and disadvantages of optical fibre communication? (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) Explain categories of networks. (10)

(b) Discuss different data flow methods. (5)

OR

IV. Explain the functions of each layer in ISO-OSI reference model. (15)

UNIT-II

V. (a) Explain different transmission impairments. (8)

(b) Explain PCM. (7)

OR

VI. Explain transmission modes (15)

UNIT-III

VII. Explain different unguided medias. (15)

OR

VIII.(a) Explain Circuit switched Networks. (8)

(b) Explain virtual circuit switching. (7)

UNIT-IV

IX. (a) What is CRC? Illustrate the working of CRC with an example. (10)

(b) State how checksum is used to detect errors. (5)

OR

X. Explain two noiseless channel protocols. (15)

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