



TED (15) – 4132

(REVISION — 2015)

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FOURTH SEMESTER DIPLOMA EXAMINATION IN COMPUTER
ENGINEERING — APRIL, 2017

DATA COMMUNICATION

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

- I Answer the following questions in one or two sentences. Each question carries 2 marks.

- ~~1.~~ What is data communication ?
- ~~2.~~ What is meant by topology ?
- ~~3.~~ Define bit rate and bit length.
4. What is UTP ?
5. What is meant by flow control ?

(5×2=10)

PART — B

(Maximum marks : 30)

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

- ~~1.~~ Discuss different types of connection between devices with figure.
2. Explain periodic signals, and sine wave with figure.
- ~~3.~~ Differentiate between baseband and broadband transmission.
- ~~4.~~ Describe Infrared waves with its disadvantages.
- ~~5.~~ Compare guided and unguided media.
6. Illustrate the use CSMA in data communication.
- ~~7.~~ Discuss about different types of errors during data transmission.

(5×6=30)



PART — C

(Maximum marks : 60)

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

UNIT — I

- III (a) Sketch the block diagram of ISO-OSI model. 7
- (b) Explain the functions of network and transport layers in OSI. 8

OR

- IV (a) List and explain different forms of data representation. 7
- (b) Explain protocols and various standards. 8

UNIT — II

- V Explain different techniques to achieve bandwidth utilization in data communication. 15

OR

- VI (a) List and discuss the different serial transmission methods. 5
- (b) Explain analog to digital conversion method. 10

UNIT — III

- VII Explain circuit and packet network switching techniques with figures. 15

OR

- VIII (a) Explain about any three unguided medias. 9
- (b) List the advantages and disadvantages of coaxial cable. 6

UNIT — IV

- IX (a) Explain different error correction methods and their difference. 6
- (b) What is the significance of redundancy in error correction ? 3
- (c) Explain coding with a coding scheme. 6

OR

- X (a) Explain point to point protocol and its functions. 7
- (b) Explain about ALOHA. 8