

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

DATA COMMUNICATION

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. List two advantages of fibre optic cable.
2. Define WDM
3. What is meant by crosstalk ?
4. What is meant by cryptography ?
5. What is meant by guided transmission media ?

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. What are the components of data communication.
2. Explain digital to analog conversion.
3. Explain different categories of networks.
4. Explain delta modulation.
5. Explain Stop-and-Wait method of flow control.
6. Explain different wireless propagation techniques.
7. Explain polling techniques.

(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) Explain about transmission impairments. 9  
 (b) Explain TCP/IP protocol suite. 6

OR

- IV Explain ISO/OSI layered architecture with a neat figure. 15

## UNIT — II

- V Explain about wireless communication. 15

OR

- VI (a) Explain PCM. 7  
 (b) Explain any two digital to digital signal encoding formats 8

## UNIT — III

- VII (a) Explain HDLC. 8  
 (b) Explain about CRC. 7

OR

- VIII Explain error control techniques. 15

## UNIT — IV

- IX Explain circuit switching, packet switching and message switching. 15

OR

- X (a) Explain transposition ciphers. 6  
 (b) Explain Data encryption standards. 9

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