



TED (15) – 5201
(REVISION — 2015)

Reg. No.
Signature

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

DIGITAL 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. Define sampling theorem.
2. Define quantization error.
3. List the types of digital modulation technique.
4. Define the terms message and information.
5. Define the term cipher.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. List the different types of switching.
2. List drawbacks of PAM.
3. Describe slope overload distortion.
4. List the silent features and drawback of BFSK.
5. Explain Gaussian minimum shift keying.
6. List the requirements of coding.
7. Describe block interleaving and convolution interleaving.

(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) Compare PAM, PWM and PPM. 10
 (b) List the advantages of delta modulation. 5

OR

- IV (a) Explain adaptive delta modulation. 10
 (b) List the different types of pulse modulation and draw the wave forms. 5

UNIT — II

- V (a) Explain BPSK system and its spectrum. 10
 (b) List the advantages of MSK. 5

OR

- VI (a) Explain QPSK system. 8
 (b) List the concept of Band Pass Data Transmission System. 7

UNIT — III

- VII (a) Explain the Shannon Hartley theorem. 8
 (b) Explain error detection and correction by parity bit method. 7

OR

- VIII Explain Hamming codes, CRC code and Convolution code. 15

UNIT — IV

- IX (a) Compare FDM and TDM. 10
 (b) Explain Digital signature. 5

OR

- X Explain different data transmission methods. 15