

TED (15) 5201
(Revision-2015)

A21-07558

Reg.No.....
Signature.....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL-2021

DIGITAL 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. Write Disadvantages of Delta Modulation.
2. List different Digital modulation Techniques
3. Explain PSK
4. State Shanon Hartley channel capacity theorem
5. Give the feature of Half duplex transmission method (3 x 2 = 6)

PART – B

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

1. Describe sampling theorem and its significance
2. With neat diagram explain PAM
3. Draw and explain the block diagram Pass Band Data Transmission system
4. Discuss about block interleaving with diagram and its drawbacks
5. Illustrate the working for parity bit error detection code
6. Draw and explain TDM
7. Explain stop & wait ARQ (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) Compare different Pulse modulation techniques (7)
(b) Explain Differential PCM (8)

OR

- IV (a) Explain PWM Modulation with circuit diagram and waveform (7)
(b) With neat diagram explain Delta Modulation. (8)

UNIT-II

- V (a) Explain QPSK Modulator (7)
(b) Explain BFSK system (8)

OR

- VI (a) Explain the BPSK modulator and demodulator and draw the waveform (9)
(b) Draw MSK modulator (6)

UNIT-III

- VII (a) Explain Shanon Fano algorithm with an example (7)
(b) Describe error detecting Hamming code (8)

OR

- VIII (a) Discuss about Convolutional interleaving (9)
(b) Explain CRC code (6)

UNIT-IV

- IX (a) Describe 3 error control methods (9)
(b) Explain FDM system with diagram (6)

OR

- X (a) Compare Synchronous and Asynchronous transmission (7)
(b) Distinguish between circuit switching & message switching with neat diagrams (8)
