



TED (10) – 4050

Reg No

(REVISION – 2010)

Signature

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

MODERN COMMUNICATION SYSTEMS

[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 PAM.
2. What is a rectangular wave guide ?
3. Define up link frequency.
4. List the light sources used in optical fiber communication.
5. Define SIM.

(5×2 = 10)

PART -- B

(Maximum marks : 30)

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

1. Explain PPM with suitable wave forms.
2. Describe the voltage-ampere characteristic of a tunnel diode.
3. Explain geostationary satellite.
4. Describe refraction with the help of diagram.
5. What are the losses in optical fibers ?
6. Explain WLL.
7. Describe Handoff procedure.

(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 generation of BPSK signal using block diagram. 8
(b) What are the advantages of digital communication ? 7

OR

- IV (a) Describe QPSK with the help of suitable diagrams. 8
(b) Explain ISDN. 7

UNIT — II

- V (a) Draw the diagram of two cavity Klystron and explain. 8
(b) Draw the block diagram of satellite earth station receiver and explain. 7

OR

- VI (a) Draw the schematic diagram of reflex klystron and explain. 8
(b) Explain FDMA in satellite communication. 7

UNIT — III

- VII (a) Draw the block diagram of fiber optic communication system and explain. 8
(b) Draw the structure of an LED and explain. 7

OR

- VIII (a) Name the different splicing methods used in optical fiber with sketches. 8
(b) Draw the circuit diagram for p-i-n photodiode and explain. 7

UNIT — IV

- IX (a) Explain a basic cellular system. 8
(b) What are the GSM standards for cellular phones ? 7

OR

- X (a) Explain CDMA technology. 8
(b) Explain the concept of cell. 7
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