TED (15/19) – 6042
(Revision – 2015/19)

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Reg.No……..
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, NOVEMBER – 2024

COMMUNICATION SYSTEMS

[Maximum Marks : 100] [Time : 3 hours]

PART – A
(Maximum Marks : 10)

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

1. Name any four types of horn antenna.
2. List any two advantages of TDMA.
3. List any two application of fiber optics in data communication.
4. List any two optical sources.
5. Define the term RFID. (5x2=10)

PART – B
(Maximum Marks : 30)

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

1. Explain the function of Wave Guides with diagram.
2. Draw the diagram and explain the working of Reflex Klystron.
3. Write the list of applications of satellite.
4. Explain Geographic Information System (GIS).
5. Explain Acceptance Angle and Numerical Aperture with diagram.
6. Compare Wi-Fi and Wi-Max.
7. Explain Bluetooth technology.

(5x6=30)

PART – C

(Maximum Marks : 60)

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

UNIT – I

III. (a) Draw the block diagram and explain the function of Microwave Transmitter. (8)

(b) Explain the working Travelling Wave Tube (TWT) with diagram. (7)

OR

IV. (a) Draw the block diagram and explain Microwave Repeater. (8)

(b) Explain the working of a Tunnel Diode with diagram. (7)

UNIT – II

V. (a) Explain various equipment used in satellite earth station. (8)

(b) Compare FDMA and CDMA. (7)

OR

VI. (a) Explain Dish Antenna with diagram. (8)

(b) Explain GPS Navigation System. (7)

UNIT –III

VII. (a) Explain the block diagram of Fiber Optic communication system. (8)

(b) Draw the diagram and explain the working of Laser Diode. (7)

OR

VIII. (a) Draw the diagram and explain the working Avalanche Diodes. (8)

(b) Explain different Cable losses. (7)

UNIT – IV

IX. (a) Draw the block diagram and explain the operation of Cellular Network. (8)

(b) Explain 4G mobile technologies. (7)

OR

X. (a) Explain the concept of cell and frequency reuse. (8)

(b) Compare GSM and CDMA. (7)

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