

TED (15) -6042
(Revision- 2015)

N21-04438

Reg.No.....
Signature.

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE –NOVEMBER -2021.

COMMUNICATION SYSTEMS

(Maximum Marks : 75)

[Time : 2.15 hours]

PART–A

Marks

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

1. List any four characteristics of microwaves.
2. Describe velocity modulation.
3. Write any four applications of satellite communication.
4. Define acceptance angle.
5. Write any four advantages of mobile communication. (3x2=6)

PART - B

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

1. Briefly discuss about Transit time effect.
2. Draw the block diagram of satellite communication system.
3. Compare CDMA, TDMA and FDMA.
4. Explain the working of PIN diode.
5. With suitable diagrams explain about fibre optic communication systems.
6. Describe the concept of frequency reuse.
7. Compare GSM and CDMA. [4x6 =24]

PART - C

(Answer **any of the three units** from the following. Each full question carries 15 marks)

UNIT I

- III** (a) With neat diagram explain the working of TWT. (9)
- (b) Write microwave frequency bands. (6)

OR

- IV** (a) With neat sketch explain working of Reflex Klystron. (9)
(b) Briefly discuss about microwave Transmitter and Receiver. (6)

UNIT- II

- V** (a) With help of block diagram explain Earth station. (9)
(b) Explain the working of Dish Antenna. (6)

OR

- VI** (a) Explain DTH. (9)
(b) Describe geo stationary orbit satellite. (6)

UNIT- III

- VII** (a) Briefly explain about the principle of LASER with neat diagrams. (9)
(b) Write any four advantages of fibre optic communication systems. (6)

OR

- VIII** (a) Explain the working of Avalanche diode. (7)
(b) Compare single mode and multimode fibers. (8)

UNIT – IV

- IX** (a) Explain CDMA technology. (9)
(b) Compare 3G and 4G mobile technologies. (6)

OR

- X** Write notes on
(a) Hand off strategies (8)
(b) Bluetooth (7)
