



TED (15) 6042
(Revision-2015)

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**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL-2022**

COMMUNICATION SYSTEM

[Maximum marks: 100]

(Time: 3 Hours)

PART – A

Maximum marks : 10

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

1. List any two types of horn antenna.
2. Define GIS.
3. List any 4 advantages of fiber optic communication.
4. Define the term hand off in mobile communication.
5. List optical detectors used in optical communication. (5 x 2 = 10)

PART – B

Maximum marks : 30

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

1. List any six characteristics of microwave devices.
2. With the help of suitable diagram, explain the working of reflex klystron.
3. Write a short note on geostationary satellites.
4. Describe the DTH satellite television.
5. Describe fiber optic cable structure.
6. Define the term channel fading.
7. List the features of WiMax. (5 x 6 = 30)

PART – C

Maximum marks : 60

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

UNIT –I

- III. (a) With diagram explain the working of TWT. (8)
- (b) Describe tunnel diode (7)



OR

- IV.(a) With a block diagram explain about microwave transmitter. (8)
(b) List any 7 characteristics of waveguide. (7)

UNIT-II

- V. (a) Draw and explain the block diagram of earth station. (8)
(b) List the application of satellite communication. (7)

OR

- VI. (a) Compare FDMA and CDMA. (8)
(b) List any 7 advantages of TDMA. (7)

UNIT-III

- VII. (a) Draw and explain the block diagram of fiber optic communication system. (8)
(b) Compare single mode and multimode fiber. (7)

OR

- VIII.(a) Explain the working of PIN photodiode used in optical communication. (8)
(b) List and explain various cable losses. (7)

UNIT-IV

- IX. (a) Explain the GSM network architecture. (8)
(b) List the advantages and disadvantages of 3G. (7)

OR

- X. (a) Draw and explain the cellular concept of mobile communication. (8)
(b) List the advantages of Bluetooth. (7)
