

TED (15) – 6134
(Revision – 2015)

N22 - 02588

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

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – NOVEMBER – 2022**

MOBILE COMMUNICATION

(Maximum Marks : 100)

(Time : 3 hours)

PART – A
(Maximum Marks : 10)

Marks

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

1. Define handoff.
2. List any four multiple access techniques in wireless networks.
3. What is meant by transponder?
4. List any four requirements of wireless LAN.
5. Define scatternet.

(5x2=10)

PART –B
(Maximum Marks : 30)

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

1. Describe first generation analog cellular networks.
2. Write short notes on CDMA wireless LAN technique.
3. Describe the differences between satellite based and terrestrial wireless communication.
4. Describe the architecture of IEEE 802.
5. Explain narrow band microwave LAN.
6. List Bluetooth applications.
7. Explain IEEE 802.15.3 protocol for WPAN.

(5x6=30)

PART – C

(Maximum Marks : 60)

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

UNIT – I

- III.** (a) List and explain different ways of increasing the capacity of a cellular system. (10)
(b) Differentiate between soft handoff and hard handoff. (5)

OR

- IV.** (a) List and explain different multiple access techniques. (8)
(b) List and explain the advantages of CDMA for cellular network. (7)

UNIT – II

- V.** (a) Explain Wireless Local Loop. (8)
(b) Describe the services provided by IEEE 802.16 standard. (7)

OR

- VI.** (a) List and explain different ways of classifying satellite orbits. (10)
(b) Draw the architectural overview of wireless application protocol. (5)

UNIT –III

- VII.** (a) Explain IEEE 802.11 Medium Access Control. (9)
(b) Describe Narrowband Microwave LAN. (6)

OR

- VIII.** (a) List the requirements for Wireless LAN. (10)
(b) Differentiate between MAC address and an LLC address. (5)

UNIT – IV

- IX.** (a) Explain the architecture of Bluetooth with diagram. (12)
(b) What is the relation between master and slave in a piconet. (3)

OR

- X.** (a) Explain IEEE 802.15 architecture for Wireless Personal Area Network. (9)
(b) Describe wireless sensor network. (6)
