

No. of Printed Pages : 4
Roll No.

221053

5th Sem / ECE, ECE(For Speech and Hearing Impaired)

Subject:- Wireless & Mobile Communication

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory
(6x1=6)

Q.1 Which of these is a characteristics of cellular networks?

- a) Uses landlines only
- b) High mobility
- c) Requires large antennas
- d) Low frequency spectrum usage

Q.2 What is the full form of GPRS?

- a) General Packet Radio Service
- b) Global Positioning Radio System
- c) General Public Radio System
- d) Global Packet Radio Satellite

Q.3 Which technology uses time slots to share frequency among users?

- a) CDMA
- b) TDMA
- c) FDMA
- d) OFDMA

Q.4 What is handover in mobile communication?

- a) Connecting to the nearest tower
- b) Switching channels
- c) Charging frequency
- d) Transferring an active call from one cell to another

Q.5 In cellular communication, what is a 'cell'?

- a) A type of mobile phone
- b) A geographical area covered by a network
- c) The main base station
- d) A network protocol

Q.6 Which of the following is a feature of 3G networks?

- a) Provides text messaging only
- b) Enables internet browsing and video calls
- c) Only works in urban areas
- d) Has limited data speed

(1)

221053

(2)

221053

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Define cell area in the context of cellular networks.
- Q.8 Mention one primary use of Wi-Fi in mobile communication.
- Q.9 What is the function of EDGE in mobile networks?
- Q.10 Write the full form of CDMA.
- Q.11 Name one advantage of 4G over 3G technology.
- Q.12 What is fading in wireless communication?

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the difference between a base station and a mobile station in cellular networks.
- Q.14 Describe any two advantages of wireless communication over wired communication.
- Q.15 What are the main features of 5G technology.?
- Q.16 Briefly explain how Frequency Division Multiple Access (FDMA) works.
- Q.17 Discuss the role of power control in reducing interference in cellular systems.

- Q.18 Explain the concept of adjacent channel interference.
- Q.19 Describe the architecture of GPRS.
- Q.20 What is cell sectoring and how does it improve network performance?
- Q.21 Outline the key features of Bluetooth technology in wireless communication.
- Q.22 What is OFDMA and where is it used?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Compare the main differences between 2G, 3G, and 4G technologies in terms of speed and functionality.
- Q.24 Describe the architecture and functions of Global System for Mobile Communication (GSM).
- Q.25 Explain Frequency Division Multiple Access (FDMA) technology and discuss its applications and benefits.