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Roll No. ....

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**5 Sem. Branch : ECE, ECE  
(For Speech & 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 The first 2G system is known as :
- a) GSM
  - b) CDMA
  - c) TDMA
  - d) FDMA
- Q.2 Larger cells are more useful in :
- a) Densely populated urban areas
  - b) Rural areas
  - c) Lightly populated urban areas
  - d) Mountain areas
- Q.3 Which of the following is not a limitation of AMPS:
- a) Low calling capacity
  - b) Poor privacy protection
  - c) Limited spectrum
  - d) Wide coverage area
- Q.4 In CDMA, all earth stations can transmit:
- a) On the same frequency

- b) At the same time
- c) Both A & B
- d) None of these

Q.5 Limitation of cordless telephone are :

- a) Background noise
- b) Side tone
- c) Frequency response
- d) All of the above

Q.6 MSC in GSM architecture stands for :

- a) Mobile station centre
- b) Mobile switching centre
- c) Mobile station controller
- d) None of these

**Section-B**

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

- Q.7 Define frequency spectrum.
- Q.8 TDMA stands for \_\_\_\_\_.
- Q.9 What is the purpose of sectoring in cellular networks?
- Q.10 Write the full form of EDGE in mobile communication.
- Q.11 Name any two types of interference in wireless communication.

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Q.12 Define propagation in the context of wireless communication.

### Section-C

**Note:** Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Explain the basic concept of frequency reuse in cellular communication.

Q.14 Describe the structure of a cell site.

Q.15 What are the key differences between FDMA and TDMA?

Q.16 Explain the purpose and working of Global System for Mobile Communication (GSM).

Q.17 What is co-channel interference? How is it controlled?

Q.18 Describe the concept of time-division multiple access (TDMA).

Q.19 Write a short note on the advantages and limitations of wireless communication.

Q.20 Explain the role of Bluetooth and Wi-Fi in wireless communication.

Q.21 What are the main features of 4G technology?

Q.22 Discuss the concept of cell splitting and its importance.

### Section-D

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

Q.23 Compare and contrast 3G, 4G and 5G technologies in terms of speed, architecture & applications.

Q.24 Explain the architecture and working of LTE (Long Term Evolution)

Q.25 Describe Code Division Multiple Access (CDMA). Discuss advantages and applications of CDMA.