

S. B. Roll. No.....

**WIRELESS AND MOBILE COMMUNICATION**  
**6<sup>th</sup> Exam/ECE/5619/Nov'24**  
**(For Batch 2018 Onwards)**

**Duration: 3Hrs.**

**M.Marks:75**

**SECTION-A**

**Q1. Do as directed.**

**15x1=15**

- a. Which was the first 2G system?
- b. What is handoff?
- c. State SMS.
- d. What is cell splitting?
- e. What are electromagnetic waves?
- f. UMTS stands for \_\_\_\_\_
- g. GPRS stands for \_\_\_\_\_
- h. LTE stands for \_\_\_\_\_
- i. HSPA stands for \_\_\_\_\_
- j. GSM stands for \_\_\_\_\_
- k. Which access technique has a very high spectral efficiency?
- l. What is SIM?
- m. What is adjacent channel interference?
- n. What is Doppler Effect?
- o. What is wireless communication?

**SECTION-B**

**Q2. Attempt any six questions.**

**6x5=30**

- i. How a geographical area is divided by different cell structures?
- ii. Give the advantages and features of GPRS.
- iii. What is Wireless Communication? List down its advantages.
- iv. Explain the cellular network system.
- v. Explain Frequency Hopping spread spectrum.
- vi. Compare micro cells and macro cells.
- vii. Why hexagonal shape of cells is preferred in cellular networks?
- viii. List the various features of LTE (Long term Evolution).

**SECTION-C**

**Q3. Attempt any three questions.**

**3x10=30**

- a. What is handoff? Explain its types in detail.
- b. Draw and explain the architecture of UMTS and its features.
- c. Write a short note on:  
i) Co channel interference  
ii) Doppler Effect
- d. What is GSM technology? Explain the GSM operation and architecture in detail.
- e. Compare TDMA, FDMA and CDMA.