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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech.(ECE)/(ETE) (2011 Onwards) (Sem.-6)****WIRELESS COMMUNICATION SYSTEM**

Subject Code : BTEC-602

Paper ID : [A2316]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**SECTION-A****Q1 Answer briefly :**

- a. Compare flat fading and frequency selective fading.
- b. What is power delay profile?
- c. What is co-channel reuse ratio?
- d. Draw a cell cluster having a size of seven.
- e. What is Forward Channel?
- f. What is cellular system?
- g. Define TDMA.
- h. What is Paging system?
- i. What is LTE-Advance system?
- j. What is uplink frequency of GSM?

### SECTION-B

2. Explain the following packet radio protocols:
  - a. Pure ALOHA
  - b. Slotted ALOHA
3. Explain with diagram the dependence between cell cluster size and interference.
4. Explain in detail Maximal Ratio Combining Diversity method.
5. Write short note on Cordless telephone system.
6. How cell splitting is used to increase the system capacity of cellular system? Explain.

### SECTION-C

7. Briefly explain about the Features of 4G and the challenges to be faced by it along with possible solutions to overcome those challenges.
8. Write in detail about
  - a. AMPs
  - b. GSM
  - c. IS\_95 (CDMA)
9. Compare TDMA, FDMA and CDMA multiple access techniques in detail.