Roll No. ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech (ECE) (Sem.–6)
CELLULAR MOBILE COMMUNICATION
Subject Code : DE-1.1
M.Code : 57530

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS 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

1. **Write briefly :**

   a. List various 2G communication standards

   b. Why handoff is required in cellular communication?

   c. What is the adjacent channel interference?

   d. List various methods used for reducing adjacent interference

   e. List various types of handoff algorithms.

   f. What is cell segmentation?

   g. Define 4:1 and 3:1 cell splitting.

   h. What is forward and reverse voice channel?

   i. Define Trunking and grade of service.

   j. Define Call Set Up time and holding time.

SECTION-B

2. Explain call establishment process in detail between landline and mobile subscriber with the help of timing diagram.

3. Explain the specification and features of CDMA 2000 standard.

4. How frequency reuse enhanced the system capacity? Explain the concept of frequency reuse distance.

5. What is the difference between fixed and non-fixed channel assignment?

6. Explain Mobile assisted handoff (MAHO) and soft handoff.

SECTION-C

7. For a GSM system, explain logical channel and its mode, transmission schemes and multiple access schemes.

8. How the transmission power, beam width and antenna height affect the coverage area and interference in cellular communication?

9. Explain point-to-point transmission between the fixed stations over the water or flat open land.

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.