USN | | | | | | | | | |

10EC843

Eighth Semester B.E. Degree Examination, June/July 2018
GSM

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions, selecting atleast TWO questions from each part.*

PART – A

1 a. Explain the objectives and services of a GSM PLMN. **(08 Marks)**
   b. Briefly explain the GSM Interfaces. **(06 Marks)**
   c. Bring out the importance of IMSI and IMEI identities of an MS. **(06 Marks)**

2 a. Explain the future techniques to reduce interference in GSM. **(10 Marks)**
   b. Explain any two methods that are used to reduce interference in GSM system. **(10 Marks)**

3 a. Explain the various bursts that are used in GSM, with a neat format. **(10 Marks)**
   b. Give a brief note : i) Data Encryption in GSM   ii) Mobile Identification. **(10 Marks)**

4 a. Explain the different attributes of a GSM speech codec. **(08 Marks)**
   b. With relevant figures, explain the working of GSM full rate vocoder. **(08 Marks)**
   c. Write a short note on ITU – T standards. **(04 Marks)**

PART – B

5 a. Explain with flow diagram for GSM call release. **(08 Marks)**
   b. Explain Intra MSC handover in GSM, with relevant flow diagram. **(08 Marks)**
   c. Briefly explain any one method of SMS, with relevant block diagram. **(04 Marks)**

6 a. Explain the wireless security requirements in GSM. **(08 Marks)**
   b. Explain the call flow for Token based registration. **(06 Marks)**
   c. List and explain the Security Algorithms used in GSM. **(06 Marks)**

7 a. Describe the factors to be satisfied while designing a wireless system. **(08 Marks)**
   b. Write a short note on Spectral Efficiency with an equation of a wireless system. **(06 Marks)**
   c. Explain the factors to be considered in selecting a modulation scheme. **(06 Marks)**

8 a. Write a brief note on SNMP. **(04 Marks)**
   b. Bring out the Management requirements for wireless networks. **(08 Marks)**
   c. What are the five TMN layers? Explain the three pertinent layers. **(08 Marks)**

*****