Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14EC2038** | **Duration :** | **3hrs** |
| **Sub. Name :** | **CELLULAR MOBILE COMMUNICATION** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Outline the significant features of modulation scheme used in IEEE 802.11a and list the advantages of the multiplexing scheme used in GSM. | CO1 | 10 |
| b. | Develop the MSK signal for the data 1010110. | CO1 | 10 |
| **(OR)** | | | | |
| 2. | a. | Compare FDMA with TDMA. | CO1 | 10 |
| b. | Illustrate the multiple access scheme used in GSM 900. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Organize the first 42 channels allocated to cells in a seven cell reuse AMPS system. Also find the channels allocated to the 4th cell. | CO2 | 10 |
| b. | Examine the various types of interferences that affect the performance and the capacity of the cellular radio system. | CO2 | 10 |
| **(OR)** | | | | |
| 4. | a. | What is co-channel interference? How is the signal to interference ratio is determined? | CO2 | 10 |
| b. | Illustrate the Handoff process. | CO2 | 10 |
|  |  |  |  |  |
| 5. | a. | Explain the following.   1. MSISDN 2. IMSI 3. TMSI 4. MSRN | CO2 | 10 |
| b. | Explain the inter BSC, intra MSC handover process in GSM. | CO2 | 10 |
| **(OR)** | | | | |
| 6. | a. | What is LEO? Why LEO systems are highly complex? State its applications. | CO2 | 10 |
| b. | What are the different types of links used in a satellite system? Explain. | CO2 | 10 |
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| 7. |  | With a neat diagram, explain the different components in digital  audio broadcasting (DAB) sender and DAB functioning. | CO2 | 20 |
| **(OR)** | | | | |
| 8. |  | List the different components that need to be integrated in the DVB  architecture. Explain DVB containers. | CO2 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Illustrate the functioning of Destination Sequenced Distance Vector  (DSDV) in Mobile Adhoc Network. | CO3 | 20 |