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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

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

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **12EC236** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **Cellular Mobile Communication** | **Max. marks :** | **100** |

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| **Q. No** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | State an advantage of 2G over 1G mobile system. | (1) |
| 2. | What is LEO? | (1) |
| 3. | What are the two different types of channel assignment? | (1) |
| 4. | What is the advantage of TDMA system? | (1) |
| 5. | Name any one of the outdoor propagation model. | (1) |
| 6. | What is Doppler spread? | (1) |
| 7. | What is the need of an equalizer? | (1) |
| 8. | What are the characteristics of a RAKE receiver? | (1) |
| 9. | Define Abis Interface. | (1) |
| 10. | What is the reuse pattern used in AMPS? | (1) |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11. | Explain the technology growth observed in wireless mobile system. | (3) |
| 12. | How co-channel interference is reduced? | (3) |
| 13. | What are the basic propagation mechanisms? | (3) |
| 14. | Explain the concept of diversity. | (3) |
| 15. | List the significant features of IS 95 system. | (3) |

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| **PART C(5 X 15= 75 MARKS)** | | |
| 16. | Explain with a neat diagram about Paging Systems. | (15) |
| (OR) | | |
| 17. | Explain with a neat diagram about Satellite Systems. | (15) |
| 18. | Discuss on frequency reuse and handoff concepts in cellular mobile communication system. | (15) |
| (OR) | | |
| 19. | Discuss on the operation of trunked system with Erlang capacity calculations. |  |
| 20. | Derive the Impulse Response of a Multipath Channel model. | (15) |
| (OR) | | |
| 21. | Explain the 2-ray ground reflection model for path loss prediction. | (15) |
| 22. | Explain the operation of linear equalizer with a complete block diagram. | (15) |
| (OR) | | |
| 23. | Describe the operation of any one of speech coding methods and its significance. | (15) |
| 24. | Explain forward channel modulation process of IS-95 CDMA. | (15) |
| (OR) | | |
| 25. | Explain the two types of GSM logical channels. Also explain the GSM Radio Interfaces. | (15) |

ALL THE BEST