

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]  
(2125)

15267

**B. Tech 7th Semester Examination**  
**Wireless Communication (OS)**  
**EC-7012**

**Time : 3 Hours**

**Max. Marks : 100**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt five questions, selecting at least one question from section A, B, C, D and Section-E is compulsory. Each section will carry equal marks.

**SECTION - A**

1. (a) Describe about 2G , 3G and 4G wireless networks. (10)  
(b) Explain the working principle of Cordless phones. (10)
2. (a) Explain the working principle of paging system. (10)  
(b) Give the comparison of various wireless systems. (10)

**SECTION - B**

3. (a) Explain the working principle of cellular networks and types of Handoff techniques. (10)  
(b) Describe the Common channel signaling process. (10)
4. (a) Describe the cell splitting criteria and the operations of cellular system. (10)  
(b) How Digital cellular system works ? (10)

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2

15267

**SECTION - C**

5. (a) Explain in detail the working principle of TDMA and FDMA. (10)  
(b) Describe the difference between wireless and fixed telephone networks. (10)
6. (a) Describe Space division multiple access technique. (10)  
(b) Explain the working principle of Integrated service digital networks (ISDN). (10)

**SECTION - D**

7. (a) Define intelligent cell concept and give its applications. (10)  
(b) Explain how does CDMA technology works. (10)
8. (a) Describe in detail features of GSM and CDMA standards. (10)  
(b) Why the power control is important in CDMA? (10)

**SECTION - E**

9. (i) How is audio transmitted using blue tooth?  
(ii) Give difference between narrowband and wideband systems.  
(iii) Define frequency reuse,  
(iv) What are wireless data services?  
(v) Define call drop. Why hand off is needed? (4×5=20)