

[Total No. of Questions - 8] [Total No. of Printed Pages - 2]
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16324(D)

M. Tech 1st Semester Examination

Design of Wireless and Mobile Communication Systems

EC-101

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 any five questions out of eight. Each question carries equal marks.

1. (a) Discuss the network layer of CDMA. (10)
(b) Explain in detail the three basic propagation mechanisms. (10)
2. (a) Explain various types of Wireless LAN Standards with their specifications. (10)
(b) Explain voice applications in CDMA system briefly. (10)
3. (a) What are various error correcting techniques? Why we use them? (10)
(b) Discuss various types of encoding methods. (10)
4. (a) Explain the architecture of an infrastructure-based IEEE 802.11. Draw the frame of the physical layer of IEEE 802.11 using FHSS. (10)
(b) Explain the TCP/IP model with suitable diagram. (10)
5. (a) Mention various examples of Wireless Communication Systems and briefly explain them. (10)

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- (b) Name logical channels of GSM System. Explain them in detail. (10)
6. (a) Name various types of Transmission media. Discuss them briefly with their features. (10)
(b) State Kepler's laws of planetary motion. What are geostationary satellites? (10)
7. (a) What do you mean by the concept of frequency reuse in cellular communication? What are the advantages of using it? (10)
(b) What is WLL? Explain the architecture of WLL in detail. (10)
8. (a) Compare FHSS with DSSS in detail. (10)
(b) Explain the frame structure of GSM. What are the features of GSM? (10)