

Antennas.	
Unit – 4	
Frequency Management and Channel Assignment: Frequency Management, Frequency –Spectrum Utilization, Set-up Channels , Channel Assignments to Cell Sites and Mobile Units, Fixed Channel Assignment, Adjacent Channel Assignment, Channel Sharing and Borrowing, Sectorization, Underlay-Overlay arrangement, Non fixed Channel Assignment Algorithms. Handoff: Value of Implementing Handoffs, Why handoffs, Types of Handoff, Initiation of a Handoff, Delaying a Handoff, Forced Handoffs, Queuing of Handoffs, Power-Difference Handoffs, Mobile Assisted Handoff(MAHO) and Soft Handoff, Cell-Site Handoff, Intersystem Handoff, Introduction to Dropped Call Rate, Formula of Dropped Call Rate.	11
Unit – 5	
Digital Cellular Networks: GSM- Architecture, Channels, Multiple-access scheme, Radio resource management, Mobility management, Communication management, Network management, North American TDMA-History, Architecture, CDMA.	8
Course outcomes: On completion of the course student will be able to <ol style="list-style-type: none"> 1. Learn Basic concepts of Cellular System 2. Identify Co-channel and Non co-channel Interference 3. Know the concepts Cell coverage for signal 4. Choose proper cell site antenna 5. Apply the different methods of Channel Assignment and Handoff mechanisms 6. Plan wireless technologies in cellular and mobile communications 	
Question paper pattern: Section A: <ol style="list-style-type: none"> 1. This section contains 10 one mark questions. 2. Two questions are given from each unit. Section B: <ol style="list-style-type: none"> 3. This Section contains 10 questions, 02 from each unit. 4. Each question carries 12 marks and a full question may have sub questions covering all topics in a unit. 5. The student has to answer 05 questions, one from each unit with internal choice. 	
Text Books: <ol style="list-style-type: none"> 1. William C. Y. Lee (2006), Mobile Cellular Telecommunications, 2nd edition, Tata McGraw Hill, India. 2. Theodore S. Rappaport (2002), Wireless Communications, 2nd edition, Pearson education, India. 	
Reference Books: <ol style="list-style-type: none"> 1. Gordon L. Stuber (2007), Principles of Mobile Communication, 2nd edition, Springer International, India. 2. William C. Y. Lee (2006), Wireless and Cellular Telecommunications, 3rd edition, McGraw Hill, New Delhi. 	