

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
SECOND SEMESTER M.TECH DEGREE EXAMINATION, MAY 2016

Electronics and Communication Engineering
(Telecommunication)

01EC6506 Wireless Communication and Networks

Max. Marks : 60

Duration: 3 Hours

(Answer ANY TWO questions from each Part)

Part A

1. Explain Jakeschannel model. (9)
2. Discuss about the different space time charunnel models (9)
3. i) Explain two ray model (5)
ii) Discuss receiver antenna diversity (4)

Part B

4. Explain the Cellular concept in Mobile Communication and illustrate with necessary expressions how the frequency reuse helps in increasing its capacity. (9)
5. Comment on the GSM cellular standards (9)
6. Total 33 MHz bandwidth allocated to a FDD cellular system which uses 25KHz simplex channels to provide full duplex voice and control. Find the number of channels available per cell if a system uses : i. 4-Cell reuse ii. 7-Cell reuse. If 1MHz of the allocated spectrum is dedicated to control channels, find an equitable distribution of control channels and voice channels (9)

Part C

7. Explain the satellite link design procedure (12)
8. a) List and describe the different usage models of Bluetooth. (6)
b) Explain the operation of a Piconet in terms of the different states of operation with a neat figure of Bluetooth state transition diagram (6)
9. a) Illustrate the operation of Mobile IP with a neat figure of Mobile IP scenario. (8)
b) Discuss about rain induced attenuation (4)