

Subject Code: H4503/R13

M. Tech –II Semester Regular/ Supply Examinations, October, 2015

WIRELESS COMMUNICATION AND NETWORKS

(Common to SSP, DIP, CE&SP, IP, C&SP, SP&C, M&CE, DECS, E&CE, CS and DECE)

Time: 3 Hours

Max Marks: 60

**Answer any FIVE questions
All questions carry EQUAL marks**

- 1 a. Mention the significance of frequency reuse in cellular networks. Explain about frequency reuse strategies. 6M
b. Distinguish between fixed channel assignment and dynamic channel assignment 6M
- 2 a. From the signal coverage point of you explain ground incident angle, elevation angle, ground reflection and reflection point? 6M
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b. If $h_1 = 50\text{mt}$, $h_2 = 3\text{mt}$, $d = 5\text{Km}$, $H = 100\text{m}$ use approximate method find incident angle, elevation angle, ground reflection and reflection point? 6M
- 3 a. How the received signal strength is predicted using the free space propagation model? Explain 6M
b. Name some of the outdoor propagation models? 6M
- 4 a. Compare coherence bandwidth and coherence time. 6M
b. What is the need for link calculation? Explain with suitable example 6M
- 5 a. Explain the Fundamental concept of Equalization 6M
b. Explain Maximum Likelihood Sequence Estimation (MLSE) Equalizer 6M
- 6 a. What are the Practical Space Diversity Consideration? 6M
b. Explain how Inter Symbol Interference, and cochannel interference is caused and how they are eliminated. 6M
- 7 a. What are the Advantages and disadvantages of Wireless Local Area Networks 6M
b. Explain, When does a WLAN become a personal area network (PAN)? 6M
- 8 Write short notes on the following
a. IEEE 802.16 and its enhancements
b. Blocking probability 6+6M
