

Code No: H4503/R13

**M. Tech. II Semester Supplementary Examinations, May-2017**

**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**

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*Answer any FIVE Questions  
All Questions Carry Equal Marks*

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| 1. a | Explain the concept of frequency reuse.  | 6M  |
| b    | Discuss about the channel assignment strategies  | 6M  |
| 2. a | Write in detail about three basic propagation mechanisms.  | 8M  |
| b    | If transmitter produces 60W of power, and is applied to unity gain antenna with 960MHz carrier frequency find the received power in dBm at a free space distance of 100 m from the antenna what is $P_r(10\text{km})$ . assume unity gain for the receiving antenna. | 4M  |
| 3.   | Explain ground reflection model in detail.   | 12M |
| 4. a | What are the factors influencing small scale fading.   | 4M  |
| b    | Explain Clarke's model for flat fading.  | 8M  |
| 5. a | The Role of equalization in mobile communication   | 4M  |
| b    | Explain training generic adaptive equalizer.   | 8M  |
| 6.   | Explain how RAKE receiver used in CDMA.  | 12M |
| 7. a | List the advantages and disadvantages of wireless LANs   | 4M  |
| b    | Explain WLL technology   | 8M  |
| 8.   | Write short notes on the following   | 12M |
| a.   | Adjacent channel interference.   |     |
| b.   | Indoor propagation losses.   |     |
| c.   | fading effects due to Doppler spread   |     |

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