

Code No: J4508/R16

M. Tech. II Semester Regular Examinations, May-2017

WIRELESS COMMUNICATIONS AND NETWORKS

(Common to SSP (45), DIP (63), CE&SP (46), IP (-), C & SP (80), DECS (38), ECE (70), DECE (37), Communication Systems (47))

Time: 3 Hours

Max. Marks: 60

Answer any FIVE Questions
All Questions Carry Equal Marks

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| 1. a | Explain about | 6M |
| | i. TDMA | |
| | ii. SDMA | |
| b | Consider a wired point-to-point network. List some performance measures. | 6M |
| 2. a | Explain how the <i>two-ray model</i> is used when a single ground reflection dominates the multipath effect. | 6M |
| b | Draw the programming model for WAP and explain its functioning | 6M |
| 3. a | What is the difference between frequency selective fading and flat fading? | 6M |
| b | How the received signal strength is predicted using the free space propagation Model? Explain | 6M |
| 4. a | Explain the algorithms for adaptive equalization. | 6M |
| b | What are the different receiver diversity combining techniques? Explain. | 6M |
| 5. a | What is the need for link calculation? Explain with suitable example | 6M |
| b | Explain Maximum Likelihood Sequence Estimation (MLSE) Equalizer | 6M |
| 6. a | Explain how Inter Symbol Interference, and cochannel interference is caused and how they are eliminated. | 6M |
| b | What is small-scale fading? Write the factors influencing fading. | 6M |
| 7. a | Draw and explain the various fields in a IEEE 802.11 MAC frame. | 6M |
| b | List and explain L2CAP logical channels? | 6M |
| 8. a | Write short notes on Blocking probability | 6M |
| b | Explain, When does a WLAN become a personal area network (PAN)? | 6M |
