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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech IV Year II Semester Regular Examinations September 2020

WIRELESS COMMUNICATION & NETWORKS

(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

- 1 a Write about Evolution of a Mobile Radio Communication Systems. **6M**
 b What is frequency reuse concept? Take the following 'N' values and discuss about the concept. a) N = 4 b) N = 7 **6M**

OR

- 2 Compare Between FDMA, TDMA, CDMA, and SDMA. **12M**

UNIT-II

- 3 a Explain the Free space propagation model? **6M**
 b Explain three different propagation mechanisms. **6M**

OR

- 4 a Explain in detail the indoor & outdoor propagation model. **6M**
 b Write short notes on small scale fading. **6M**

UNIT-III

- 5 Explain in detail about Linear Equalizers of the following with neat diagram. **12M**
 i) Linear Transversal Equalizer ii) Lattice Equalizer

OR

- 6 Explain following diversity techniques in detail. **12M**
 i) Maximal ratio Combiner ii) Scanning Diversity

UNIT-IV

- 7 a Discuss the generation of subcarriers using the IFFT with a neat diagram. **8M**
 b What is Vector Coding? **4M**

OR

- 8 a Explain about the parameters required for OFDM system design. **6M**
 b Draw the block diagram of OFDM transmitter and receiver. Explain them in detail. **6M**

UNIT-V

- 9 a Explain the merging wireless networks and PSTN. **6M**
 b Elaborate packet switching Network. **6M**

OR

- 10 Compare the performance of 1G, 2G, 3G wireless networks. **12M**

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