

R13

Code No: 118FG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, April - 2018

WIRELESS COMMUNICATIONS AND NETWORKS

(Electronics and Communication Engineering)

Max. Marks: 75

Time: 3 hours

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

- 1.a) What is intersystem handoff?
- b) Discuss about Longley-Ryce Model.
- c) Define Brewster angle.
- d) What are the Time Dispersion Parameters of Multipath channels?
- e) Discuss about advantages and disadvantages of WLAN.
- f) Discuss about Ericsson Multiple Breakpoint Model.
- g) Define Adjacent-channel Interference.
- h) Define equalization.
- i) List the advantages of WLAN.
- j) Write about hiper lan WLL.

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PART - B

(50 Marks)

2. Explain the various types of Handoff processes available.
3. Explain in detail about Trunking and Grade of Service.
- 4.a) Explain knife Edge Diffraction Model.
b) With neat diagrams explain the Free Space Propagation Model.
5. Derive the Impulse response model of a Multipath channel.
6. Discuss in detail different types of small scale fading.
7. What is small scale fading? What are the factors influencing small scale fading?
8. Explain LMS and Recursive Least Square algorithm.
9. Derive the expression for Maximal Ratio Combining Improvement.
- 10.a) Draw the configuration of IEEE802.11 architecture.
b) Explain the physical layer specifications of IEEE802.11 using infrared.
11. Compare and contrast IEEE 802.11 a, b, g and n standards.

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