

Code No: 118FG

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, May - 2017

WIRELESS COMMUNICATIONS AND NETWORKS

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 75

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

- | | | |
|------|---------------------------------------|------------|
| 1.a) | What are prioritizing handoffs? | (25 Marks) |
| b) | Explain about Sectoring. | [2] |
| c) | Discuss about Hata model. | [3] |
| d) | Write about Site specific modeling. | [2] |
| e) | Discuss about level crossing . | [3] |
| f) | Write a short notes on Doppler spread | [2] |
| g) | Explain about frequency diversity. | [3] |
| h) | Discuss about Zero forcing algorithm. | [2] |
| i) | Write about WLL. | [3] |
| j) | List the disadvantages of WLAN. | [2] |
| | | [3] |

PART - B

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|------|--|------------|
| 2. | Explain in detail about Trunking and Grade of Service. | (50 Marks) |
| | OR | [10] |
| 3.a) | Discuss briefly about frequency reuse. | |
| b) | Write short notes on channel assignment strategies. | [5+5] |
| 4a) | Discuss about Brewster angle. | |
| b) | Explain about Longley- Ryce model | [3+7] |
| | OR | |
| 5. | Explain in detail about Ground Reflection Model | [10] |
| 6. | Discuss in detail about the factors that influence small scale fading. | [10] |
| | OR | |
| 7. | Discuss about fast fading and slow fading. | [10] |
| 8. | Explain in detail about Decision Feedback Equalization. | [10] |
| | OR | |
| 9. | Derive the expression for Maximal Ratio Combining Improvement | [10] |
| 10. | Discuss in detail about WLAN Topologies. | [10] |
| | OR | |
| 11. | Write short notes on: | |
| | a) Wireless PANS | |
| | b) Hiper LAN | [5+5] |