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Question Paper Code: 31586

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Fifth Semester

Information Technology

01UIT506 – WIRELESS COMMUNICATION

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What are the basic units of a cellular system?
2. What is meant by frequency reuse?
3. What is propagation model?
4. Write the significance of cell coverage area?
5. Define digital modulation?
6. What is Rayleigh and Ricean fading?
7. What is the need of equalization?
8. Define transmit diversity.
9. Define multiplexing.
10. What is OFDM?

PART - B (5 x 16 = 80 Marks)

11. (a) Discuss about the evolution of mobile radio communications in detail. (16)

Or

(b) Explain the different techniques used to improve coverage and capacity of cellular system? (16)

12. (a) (i) Enumerate of propagation mechanism in short? (8)

(ii) Explain about free space path loss in wave propagation. (8)

Or

(b) Discuss about combine path loss and shadowing model techniques. (16)

13. (a) Write about impulse response model of a multipath channel in detail. (16)

Or

(b) Discuss different types of fading techniques and its effects in multipath mobile radio wave propagation. (16)

14. (a) (i) Explain various diversity techniques used in wireless communication? (8)

(ii) Compare the performance of signal combining techniques. (8)

Or

(b) Explain the linear equalizers and decision feedback equalizers in detail. (16)

15. (a) Write about the services and architecture of GSM system in detail. (16)

Or

(b) Write a case study for representation of IEEE 802.11a wireless LAN elaborately on par with recent trends and standards. (16)