

Total No. of Questions : 10] [Total No. of Printed Pages : 3

Roll No.

EC-7101

B. E. (Seventh Semester)
EXAMINATION, Dec., 2011
(Electronics & Communication Engg. Branch)
WIRELESS COMMUNICATION

(Elective - I)

(EC - 7101)

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt *one* question from each Unit. All questions carry equal marks.

Unit - I

1. (a) Explain different types of wireless services with the requirements according to economical aspect. 10
- (b) Explain the following terms : 10
 - (i) Diffraction
 - (ii) Waveguiding

Or

2. (a) How much spectrum is allotted to wireless mobile communication system ? Is there any limitation of spectrum ? 10
- (b) Discuss noise and interference limited system with multipath propagation. 10

P.T.O.

Unit – II

3. Discuss time-variant two-path model of wireless propagation channels. What is the effect of large scale fading on wireless communication channels ? 20

Or

4. (a) What is delay dispersion ? Discuss the causes of delay dispersion. 10
(b) Describe the following terms : 10
(i) Ultra wide band channel
(ii) WSSUS model

Unit – III

5. Explain deterministic channel modelling methods in detail. Compare narrow band and wide band channel models. 20

Or

6. (a) Discuss frequency domain and time domain analysis of channel sounding. How can it help to design improved wireless module ? 10
(b) Draw and explain whip and dipole antenna set at base stations. 10

Unit – IV

7. Draw the block diagram of wireless communication link and explain its modulation-demodulation formats. 20

Or

8. (a) What in AWGN channels ? Discuss error probability in AWGN channels. 12
(b) Discuss error probability in flat-fading channels. 8

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Unit - V

9. What is macro and micro diversity ? Compare it with proper block diagram. Discuss diversity reception in short.

20

Or

10. Write short notes on any two of the following : 10 each

- (i) Linear equalizers
- (ii) Blind equalizers
- (iii) Transmit diversity
- (iv) Viterbi detector