

**EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE  
EXAMINATION, JUNE 2008**

EC 04 802—WIRELESS MOBILE COMMUNICATION

(2004 admissions)

Time : Three Hours

Maximum :100 Marks

*Answer all questions.*

- I. (a) What is meant by path loss ? Explain about the large scale path loss.  
(b) What is meant by fading ? Explain about the small scale fading.  
(c) Briefly explain about the equal gain combining.  
(d) Briefly explain about the maximal ratio combining.  
(e) What is meant by frequency reuse distance ? Explain about the frequency reuse schemes.  
(f) What is meant by Dynamic splitting ? Explain about the permanent splitting.  
(g) Explain about the processing gain.  
(h) What is meant by spread spectrum systems ? Explain about the Frequency hopped spread Spectrum systems.
- (8 × 5 = 40 marks)
- II. (a) Explain in detail about the concept of level crossing rate and average fade duration. (15 marks)
- Or*
- (b) Explain in detail about the time dispersion and frequency selective fading. (15 marks)
- III. (a) Write short notes on : —
- (i) Switched Combining. (7 marks)  
(ii) Maximal ratio combining. (8 marks)
- Or*
- (b) Explain in detail about the RAKE demodulator performance. (15 marks)
- IV. (a) Explain in detail about the channel assignment strategies. (15 marks)

*Or*

(b) (i) Discuss about frequency reuse. (5 marks)

(ii) What is two type of handoff? Briefly explain about the two handoff—level algorithm. (10 marks)

V. (a) Discuss in detail about the analysis of direct sequence spread spectrum systems. (15 marks)

Or

(b) Explain in detail about the time hopped spread spectrum systems. (15 marks)

(4 × 15 = 60 marks)