Name.....

Reg. No.....

EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION JUNE 2009

EC 04 802 : WIRELESS MOBILE COMMUNICATION

(2004 admissions)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

I. (a) Briefly explain about the doppler spread.

(b) Briefly explain about the level crossing rate.

(c) Briefly explain about the selective diversity combining.

(d) Define the terms :

(i) Diversity branch.

(ii) Signal paths.

(e) What are the limitations of mobile telephone systems ?

(f) Explain about the trunking efficiency.

(g) What are the fundamental concepts of spread spectrum systems.

(h) Briefly explain about the Pseudo noise sequence.

(8 × 5 = 40 marks)

II. (a) Write short notes on :

(i) Free space propagation model. (7 marks)

(ii) Ground reflection model. (8 marks)

Or

(b) Explain in detail about the impulse response model of a multipath channel. (15 marks)

III. (a) Explain in detail about the Digital communication through fading multipath channels. (15 marks)

Or

(b) Discuss in detail about the diversity techniques for mobile wireless radio systems. (15 marks)

IV. (a) Discuss in detail about the power control for reducing interference. (15 marks)

Or

(b) (i) Explain in detail about the Queuing of Handoffs. (11 marks)

(ii) Briefly explain the advantage of delayed handoffs. (4 marks)

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

Or

(b) Explain in detail about the synchronization of spread spectrum systems. (15 marks)

[4 × 15 = 60 marks]

[redacted]