

Roll No. ....

**22152**

**M. E./M. Tech. 2nd Semester (ECE)**

**Examination – June, 2013**

**WIRELESS MOBILE COMMUNICATION**

Paper : MEEC-508

*Time : Three Hours]*

*[Maximum Marks : 100*

*Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complain in this regard, will be entertained after examination.*

**Note :** Attempt any *five* questions.

1. Explain in detail 1G, 2G, 3G generation systems & their standard. 20
2. Explain forward & reverse channel parameters of 15-95 CDMA. 20
3. How can we increase coverage & capacity of a cellular system ? 20
4. Explain different outdoor propagation models. 20
5. Explain fading in detail. 20

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6. (a) What do you understand by spread spectrum ?  
Also draw its modulator and demodulator circuit. 12
- (b) What is the difference between hard handoff and soft handoff ? 8
7. (a) What is PN sequence ? Explain its properties. 10
- (b) Write short note on wireless data services. 10
8. (a) Prove that for hexagonal geometry the co-channel reuse ratio is given by  $Q = \sqrt{3N}$ , where  $N = i^2 + ij + j^2$ . 10
- (b) How a cell is made in a cellular system ? 10