

**R07****Code: R7410403**

B.Tech IV Year I Semester (R07) Supplementary Examinations, May 2013

**CELLULAR & MOBILE COMMUNICATIONS**

(Common to ECE and ECC)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions  
All questions carry equal marks

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1. (a) What are the limitations of conventional mobile telephone system?  
(b) Explain about different planning procedures adopted in cellular system.
2. (a) Explain the concept of frequency reuse schemes.  
(b) Explain hand off mechanism and cell splitting techniques.
3. (a) What is cochannel interference and explain cochannel interference at cell site?  
(b) Explain adjacent channel interference and also explain Near End-Far End interference.
4. (a) Briefly explain the phase difference between direct path and ground reflection path and its effects on point to point model.  
(b) Explain briefly about long distance propagation.
5. (a) Briefly explain about antenna cell site.  
(b) Explain about high gain broadband umbrella pattern antenna.
6. (a) Explain the terms frequency management and mention the techniques for increasing the frequency spectrum.  
(b) What is meant by channel assignment? Explain.
7. (a) What is call holding time? Explain initiation of a hand off.  
(b) Briefly explain about delayed hand-off.
8. (a) Explain TDMA system architecture.  
(b) Explain briefly about operation sub system.

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