

Code: 9A04801

R09

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations, July 2013

**CELLULAR AND MOBILE COMMUNICATIONS**

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

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- 1 (a) Write about the performance criteria of a cellular mobile system.  
(b) Why cells are shaped hexagonal in cellular system?
- 2 (a) Explain the concept of frequency reuse.  
(b) What is cochannel interference? Explain how to calculate cochannel interference reduction factor.
- 3 (a) Explain the design of antenna system.  
(b) Write the types of non-cochannel interference and explain each of them.
- 4 (a) Write short notes on signal reflections in flat and hilly terrain.  
(b) Write about point to point model.
- 5 (a) Write short notes on omni directional antennas.  
(b) Explain umbrella pattern in antennas with neat sketch.
- 6 (a) Explain channel assignment strategies.  
(b) Write short notes on setup channels.
- 7 (a) Explain the phenomena of handoff. Write about handoff invitation.  
(b) Write a note on vehicle locating methods.
- 8 Explain the architecture of GSM in detail.

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