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## MEDC - 205

### M.E./M.Tech., II Semester

Examination, June 2014

### Mobile And Satellite Communication

Time : Three Hours

Maximum Marks : 70

**Note :** Attempt any five questions. All questions carry equal marks.

1. a) Discuss the channel assignment strategies.  
b) Show that the cluster size depends only on the frequency reuse ratio.
2. a) Derive the relation between co-channel reduction factor and frequency reuse factor.  
b) Derive the expression for Trunking and grade of service.
3. a) How to predict the value of a discrete time signal using linear prediction based analysis by synthesis (LPA's) coding.  
b) Discuss about the Turbo codes used in wireless communication.
4. a) Explain co-channel interference and how it can be reduced.  
b) Explain QPSK modulation technique.

5. a) Explain the principle working of QAM modulator.  
b) Discuss the working of frequency hopped spread spectrum technique.
6. a) Discuss the working of OFDM system.  
b) Write briefly about ETSI-HILARAN protocol.
7. a) Explain briefly about MEO satellite system.  
b) Discuss the principle concept of wideband CDMA.
8. Write short notes on any two of the following:
  - a)  $\pi/4$  QPSK
  - b) Adaptive equalization
  - c) M-ary FSK

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