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Roll No

MEDC - 205

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

Examination, December 2015

Mobile And Satellite Communication

Time : Three Hours

Maximum Marks : 70

- Note :** i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Make suitable assumptions, if necessary.

1. a) Discuss the techniques for Handoff assignment used in cellular mobile communication and compare them.
b) Mention the ways to improve cellular capacity and coverage and show how they are implemented.
2. a) What are the time domain and frequency domain speech coders? Explain any one type of speech coder of each category.
b) Define Co-channel interference and adjacent channel interference and discuss their effect on system capacity.
3. a) Distinguish between large scale and small scale fading. Also explain log Normal shadowing in brief.
b) How Coherence BW and time are related with Doppler spread and delay spread. Discuss in brief.

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4. a) Derive the prob of error of BPSK system. How this can be improved.
b) Classify Diversity techniques and explain one way of implementation of each one.
5. a) Discuss the link calculation used for satellite system. Elaborate each term used in link calculation.
b) Write down salient features of CDMA system. Also give application of the same.
6. a) What is hidden and exposed terminal problem in wireless system and how it is overcome.
b) Discuss the CDMA - CA techniques in brief and compare it with other multiple access techniques used in WLAN.
7. a) Write down various features of different variants of 80211 protocol.
b) List out various features of Second Generation and Third Generation mobile system standard used in India.
8. Write short notes on any two :
a) Equalisation and adaptive equalisation
b) Frequency reuse and reuse distance
c) GEO and MEO satellite system

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