[2]

Choice Based Grading System (CBGS) Cellular Mobile Communication

Time: Three Hours

Maximum Marks: 70

Note: i) Attempt any five questions.

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- ii) All questions carry equal marks.
- 1. a) With the help of diagram explain the working of cellular system and performance criteria.
 - b) Discuss the concept of frequency reuse channels and co-channel interference reduction factor.
- Discuss the concept of handoff mechanism and cell splitting.
 - Explain about mobile point to point model.
- Discuss about propagation over water or flat open area.
 - Determine the path loss from point to point prediction model.
- Discuss about mobile to mobile propagation.
 - Discuss about equivalent circuits of antennas. Also explain about gain and pattern relationship.

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- 5. a) Explain co-channel interference. Discuss real time co-channel interference measurement at mobile radio transceivers.
 - b) Explain briefly about types of Non co-channel interference.
- 6. Discuss in detail about frequency management and channel assignment.
- Explain the GSM architecture and layering model.
 - b) Explain the working principle of CDMA.
- 8. Write short notes on any two of the following:
 - a) C/I in an omnidirectional antenna system
 - Handoffs and dropped calls
 - c) PDC, PCN and PCS

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