

Code: R7410403**B.Tech IV Year I Semester (R07) Supplementary Examinations December 2015****CELLULAR & MOBILE COMMUNICATIONS****(Common to ECE & ECC)****(For 2008 Regular admitted batch only)****Time: 3 hours****Max. Marks: 80**

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain about basic cellular system.
(b) Explain the evaluation of the analog and digital cellular mobile system.
- 2 (a) Explain the co – channel interference reduction factor.
(b) What is the need of splitting and explain the cell splitting?
- 3 (a) Explain the concept of lowering the antenna height to decrease the co-channel interference.
(b) Discuss the diversity schemes for interference reductions at both mobile unit and cell site.
- 4 (a) Write about the phase difference between the direct path and the ground reflected path.
(b) Explain about foliage loss.
- 5 (a) How interference can be reduced by using the directional antennas at the cell site?
(b) Explain in detail about minimum separation of cell site receiving antennas.
- 6 (a) Explain about paging channels.
(b) What do you understand by non fixed channel assignment? Describe the corresponding algorithms.
- 7 (a) Give the relation among capacity, voice quality and dropped call rate.
(b) What is the general formula of dropped call rate? Explain.
- 8 (a) Explain in detail about GSM architecture.
(b) Write about the signaling format and message structure in TDMA.
