

Code :R7410403

R7

IV B.Tech I Semester(R07) Supplementary Examinations, May/June 2011
CELLULAR & MOBILE COMMUNICATIONS

(Common to Electronics & Communication Engineering, Electronics & Computer Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Discuss in detail about analog and digital cellular system.
(b) Write short notes on Hexagonal shaped cells.
2. (a) Derive an expression for co-channel interference reduction factor.
(b) Write short notes on cell splitting.
3. (a) Write short notes on real time co-channel interference.
(b) Discuss about antenna parameters and their effects on diversity receiver.
4. (a) Discuss about general formula for mobile propagation over water and flat surface.
(b) Discuss about phase difference considerations between direct and reflected paths.
5. (a) Discuss about different high gain antennas that are used for mobile communications.
(b) Directional antennas more popularly used than unidirectional antennas in cellular mobile communications – justify the above statement.
6. (a) Discuss about the process of channel assignments to cell sites and mobile units.
(b) Write short notes on fixed channel assignment.
7. (a) Discuss about dropped call rate and their evaluation.
(b) Write short notes on different types of hand-off's.
8. (a) Explain in detail about GSM architecture.
(b) Compare different types of multiple access schemes that are used for mobile communications.
