

Code: R7410403

R7

IV B.Tech I Semester (R07) Supplementary Examinations, May 2012

CELLULAR AND MOBILE COMMUNICATIONS

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

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Explain briefly about cellular system and trunking efficiency.
(b) Explain mobile fading characteristics and signal coverage using hexagon cells.
2. (a) What are the major elements of cellular mobile radio system and explain the concept of co channel interference and cell splitting.
(b) Explain general view of cellular telecommunications systems.
3. (a) What is meant by co channel interference and non-co channel interference? Explain co channel interference at the mobile unit.
(b) What is SINAD and how do you measure SINAD and explain SINAD meter?
4. (a) Explain briefly about point to point model and its merits
(b) Briefly narrate the importance of path loss curve along the radio path.
5. (a) Define pointing vector and draw actual antenna and its equivalent circuit and derive the formula for pointing vector.
(b) Explain the term effective power and Gouy pattern relationship
6. (a) Explain briefly about fixed channel assignment.
(b) What are control channels? Explain.
7. (a) Why hand offs and explain two types of hand offs.
(b) Explain what forced hand is off and mention the advantages of delayed hand off.
8. (a) What is GSM and explain its architecture.
(b) Briefly explain multiple access scheme.
