

R09**Code: 9A04801**

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations June/July 2016

CELLULAR & MOBILE COMMUNICATIONS

(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain different cell shapes. Why you consider the hexagonal shaped cells in communication system.
(b) Explain the major elements of cellular mobile radio system.
- 2 (a) Derive the C/I for normal case in an Omni directional antenna system.
(b) What is the need for splitting? Explain cell splitting.
- 3 (a) Explain how co-channel interference is measured in real time mobile radio range receivers.
(b) What is near-end-far-end interference ratio? Explain its effects.
- 4 (a) Discuss the Lee model for point to point propagation.
(b) Explain the effect of propagation of mobile signals over water.
- 5 (a) How interference can be reduced by using directional antennas at the cell site?
(b) Explain the mobile high gain antennas.
- 6 (a) Explain in detail about grouping of setup channels.
(b) What do you understand by non fixed channel assignment? Describe the corresponding algorithms.
- 7 (a) Explain about delaying handoff. What are the advantages of delayed handoff?
(b) What are the two decisions making parameters of handoff? Explain.
- 8 (a) Explain the architecture of TDMA.
(b) Explain in detail about multiple access schemes.
