

Code No: R1642041

R16

Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, July - 2021
CELLULAR AND MOBILE COMMUNICATIONS
(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) Define frequency reuse ratio. [3]
- b) What is the significance of diversity receiver? [2]
- c) What are the functions of frequency management? [2]
- d) Explain in detail about the importance of cell-site antennas. [2]
- e) Discuss about handoff initiation [2]
- f) What are the different traffic channels of GSM [3]

PART-B (4x14 = 56 Marks)

2. a) Discuss about Trucking and GOS. [7]
- b) Explain about consideration of the components of Cellular system [7]
3. a) With neat sketch explain the effect of reduction of Antenna height on different terrains? [7]
- b) Explain the measurement of real time Co-Channel interference. [7]
4. a) Explain in detail about near-distance propagation. [7]
- b) Discuss about fixed channel and non-fixed channel assignment [7]
5. a) What is the minimum separation required for cell site antennas and discuss about high gain antennas. [7]
- b) Explain in brief about Roof Mounted antenna. [7]
6. a) With neat sketch explain the concept of Handoff. [7]
- b) Write short notes on vehicle locating methods [7]
7. a) Explain in detail the Code Division Multiple Access technique [7]
- b) What are the subsystems of GSM? Explain the functions of OSS sub system? [7]