



DEPARTMENT OF ECE

"T3 Examination, May 2018"

Semester: IV

Subject: WIRELESS COMMUNICATION

Branch: CSE/IT

Course Type: CORE

Time: 3 Hours

Max. Marks: 80

Date of Exam: 21.05.2018.

Subject Code: ECH251-T

Session: I

Course Nature: HARD

Program: B.Tech

Signature: HOD/Associate HOD:

Note: All questions are compulsory from Part A (2X10=20Marks). Attempt any two questions from Part B (Each question carry 15 Marks). Attempt any two questions from Part C (Each question carry 15 marks).

Part-A (Each Question carries 2 Marks)

Q.1

- a) Describe trunking efficiency.
- b) Explain service quality in brief.
- c) What geometric shape is used in cellular system design and why?
- d) Explain the concept of frequency reuse channels.
- e) List five ways of increasing the capacity of cellular system.
- f) What is VLR?
- g) Explain dynamic cell splitting.
- h) What do you understand by PN sequences?
- i) What is co-channel interference?
- j) What are the advantages of using CDMA for a cellular network?

Part-B (ATTEMPT ANY TWO QUESTIONS) (Each Question Carries 15 Marks)

Q.2 Explain frequency hopping spread spectrum using MFSK.

Q.3 Explain the basic principle of CDMA. Also explain CDMA for direct sequence spread spectrum.

Q.4 Compare the multiple access techniques: TDMA, FDMA, CDMA and SDMA.

Part-C (ATTEMPT ANY TWO QUESTIONS) (Each Question Carries 15 Marks)

Q.5 Describe orthogonal frequency division multiple access. Also explain its advantages and disadvantages.

Q.6 Explain SCFDMA. How it is different from OFDMA.

Q.7 What is LTE? What are the issues surrounding LTE.