Printed Pages:01 **Sub Code: EEC 028**

Paper Id: 131207 **Roll No.** | | | | | | | | | | |

B.TECH

(SEM-VI) THEORY EXAMINATION 2018-19

WIRELESS COMMUNICATION

Time: 3 Hours ***Total Marks: 100***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

a) What is meant by multi path propagation
b) Compare fast and slow fading.
c) Define frequency reuse.
d) Describe Vocoder.
e) What is the use of channel planning in wireless system?
f) Describe the term P N sequence
g) Explain the use of Equalizer in communication receiver.
h) Describe the characteristics of speech signal.
i) List different types of diversity schemes.
j) Explain the parameters of multi path channel.

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30

a) Differentiate between FDMA and CDMA
b) What do you mean by path loss model? Explain in detail about long distance path loss model.
c) Explain the principle of RAKE Receiver in detail.
d) Explain the following term: cell splitting, adjacent channel interference.
e) Describe the evolution of mobile radio communication.

SECTION C

3. Attempt any *one* part of the following: 10 x 1 = 10

a) Give the difference between frequency flat and frequency selective fading.
b) Explain briefly about two ray ground reflection models.

4. Attempt any *one* part of the following: 10 x 1 = 10

a) Identify the channel capacity of TDMA in cell system.
b) Describe the functional block diagram of linear predictive coders.

5. Attempt any *one* part of the following: 10 x 1 = 10

a) Explain the Frequency hopped spread spectrum with the help of block diagram
b) Describe in detail: (i) linear equalizer (ii) non linear equalizer.

6. Attempt any *one* part of the following: 10 x 1 = 10

a) Explain channel assignments and Hand off strategies in detail.
b) Write a short note on :
(i) Trunking (ii) grade of service of cell system.

7. Attempt any *one* part of the following: 10 x 1 = 10

a) Explain the term: (i) knife edge diffraction model (ii) radar cross section model
b) Describe the impulse response model of a multipath channel.