S.B. Roll No……

WIRELESS AND MOBILE COMMUNICATION

6th Exam/ECE/ETV/ECE(II)/5761/0761/8164/May'16

Duration: 3 Hrs **M. Marks=75**

SECTION A

Q1. Answer the following **15x1=15**

a. What is base station?
b. The change in frequency of a wave for an observer moving relative to the source of the wave is_____.
c. _____ is most applicable when there is no dominant propagation along a line of sight between the transmitter and receiver.
d. The most widely used standard for cellular communication is_____ .
e. Sectoring and splitting in the cellular system increases_____ .
f. In an FHSS, a transmitter_____ between available frequencies according to a specified algorithm.
g. Each FDMA user is assigned a specific _____.
h. GSM stands for _____.
i. The term MTSO in cellular system means_____.
j. A _____ is the basic geographic unit of a cellular system.
k. The process of transferring the call, which is in progress from one channel/base station to another, is called_____ .
l. _____ has a very high spectral efficiency.
m. The mobile equipment is uniquely identified by the_____ .
n. Bluetooth is an _____ wireless technology.
o. CDMA base stations consume _____power than GSM.

SECTION B

Q2.Attempt Any FIVE Questions **5x6=30**

a. Briefly explain the principle of cellular networks.
b. Compare FDMA, CDMA and TDMA techniques.
c. What is a paging system? What are its advantages and disadvantages?
d. Explain the concept of Frequency reuse in cellular system.
e. Explain Frequency Hopping spread spectrum.
f. What is GSM technology? What are its features?
g. What is the principle of working of GPRS?
h. Discuss the concept of co-channel interference.

SECTION C

Q3. Attempt Any THREE Questions **3x10=30**

a. How does wireless communication signal propagates? Which factors affects propagation of signals?
b. How a geographical area is divided by different cell structures? What is cell splitting?
c. What is CDMA? Give its advantages and disadvantages. Compare it with GSM technology.
d. Write a short note on any **TWO** :
  i) Handoff
  ii) Bluetooth
  iii) Cell Sectoring
e. What is DTH system? Explain its working with the help of its general block diagram .