

Exam.Code:0924
Sub. Code: 6259

1058
B.E. (Information Technology)
Sixth Semester
IT-631: Wireless Communication (OLD)
(May – 2015)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Part.

x-x-x

I. Attempt the following:-

- a) Enumerate the difference between WiFi and WiMax.
- b) Draw a typical GSM architecture.
- c) What is meant by PN codes? Why and where are they used?
- d) What is the concept of scatter net in Bluetooth?
- e) What is the difference between Narrowband and Broadband Communication?
(2x5)

UNIT - I

- II. a) Differentiate between Wireless LAN and Personnel Area Networks (PAN).
b) Compare the various generations of mobile communication. (5,5)
- III. a) A cellular service provider decides to use a digital cellular scheme which can tolerate a signal interference ratio of 15dB in the worst case. Find the optimal value of cluster size for maximum capacity if the path loss exponent is $n=4$.
b) How does cell splitting improve the cell capacity in cellular systems?
(5,5)
- IV. a) What are the basic GSM Radio Channels?
b) How is security ensured in CDMA Systems?
(5,5)

UNIT -II

- V. a) Explain the Maximal Ratio Combining scheme for Rayleigh channels?
b) What are the various types of fading channels?
(5,5)

P.T.O.

(2)

- VI. a) How is TDMA different from FDMA? (5.5)
b) How is RAKE Receiver used to provide diversity?
- VII. a) Explain the Bluetooth Protocol Stack. (5.5)
b) What are the technical specifications of the Edge and CDMA 2000?

X-X-X