Exam.Code:0938
Sub. Code: 33807

2015

B.E. (Electrical and Electronics Engineering)

Eighth Semester

EE-809: Wireless Communication

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 Unit.*

x-x-x

I. Attempt the following:-

a) Define frequency reuse and explain its significance.

b) What is the main advantage of EDGE over GPRS?

c) List three differences between 3G and 4G networks.

d) Explain the concept of small-scale fading.

e) What are the key features of the LTE standard?

f) Describe the function of a RAKE receiver.

g) What is the role of SS-7 in wireless networks?

h) Compare TDMA and FDMA in terms of efficiency.

i) Mention any two characteristics of air interface in wireless systems.

j) What is the CT2 standard used for? (10x1)

UNIT - I

II. Discuss the evolution of mobile communication systems and compare any two wireless communication systems in terms of features and applications. (10)

III. Explain the principles of cellular system design, focusing on frequency reuse, power control, and strategies to improve coverage and capacity. (10)

IV. Describe digital modulation techniques and spread spectrum modulation techniques used in wireless communication, with suitable examples. (10)

UNIT - II

V. What are diversity techniques in mobile radio systems? Explain space diversity and RAKE receiver in detail. (10)

P.T.O.

VI. Differentiate between wireless and fixed telephone networks. Elaborate on the development of wireless networks and the role of broadband ISDN. (10)

VII. Discuss the GSM architecture and frame structure. Compare GSM with CDMA in terms of services and channel specifications. (10)

x-x-x