

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Sem-I Regular Examination January / February 2011

Subject code: 712701N

Subject Name: Wireless Communication Network

Date: 31/01 /2011

Time: 02.30 pm – 05.00 pm

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Explain various challenges to develop efficient wireless system **07**
(b) Explain the Electromagnetic spectrum band and its characteristics. **07**

- Q.2** (a) Describe various Modulation Techniques for Wireless Network Systems **07**
(b) What is Mobility management? Explain with suitable example. **07**

OR

- (b) Explain various GSM channels and write in brief about its usage. **07**

- Q.3** (a) Draw block diagram and describe the cdma2000 protocol stack **07**
(b) Explain orthogonal frequency division multiplexing and its advantages. **07**

OR

- Q.3** (a) What is the importance of launching a satellite in LEO, GEO and MEO? **07**
(b) Explain one example of Satellite based mobile telephony system. **07**

- Q.4** (a) Give comparison of Wireless Local Loop versus Wired Access **07**
(b) Enumerate Wireless LAN Requirements and explain them **07**

OR

- Q.4** (a) Explain the ATM protocol architecture with necessary block diagram **07**
(b) Write a note on Bluetooth protocol stack and Bluetooth profiles **07**

- Q.5** (a) Describe Wired Equivalent Privacy (WEP) Protocol **07**
(b) Explain benefits of VPN – virtual private network **07**

OR

- Q.5** (a) Explain economic benefits of wireless networks **07**
(b) Give full name of following **07**
CDPD, HCSD, GPRS, BER, LMDS, PPTP, EDGE
