

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

Subject code: 712701N**Date: 08-01-2013****Subject Name: Wireless Communication Network****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 GSM Architecture with all its sub systems. **07**
(b) Give comparison of 2G and 3G communication systems **07**
- Q.2** (a) Give comparison of TDMA, CDMA and FDMA **07**
(b) What is Mobility management? Explain with suitable example. **07**
- OR**
- (b) Write note on network planning in WCDMA **07**
- Q.3** (a) What are the different methods for improving Coverage and Capacity in a Cellular System?. **07**
(b) Explain Channel Assignment Strategies in Detail **07**
- OR**
- Q.3** (a) Explain various GSM channels and write in brief about its usage. **07**
(b) Explain Hand-off Strategies in Detail **07**
- Q.4** (a) What is small scale fading? Discuss the factors affecting small scale fading. **07**
(b) Explain packet radio access technique and concept of slotted ALOHA. **07**
- OR**
- Q.4** (a) Explain in detail the architecture of GPRS. **07**
Q.4 (b) What is the importance of launching a satellite in LEO, GEO and MEO? **07**
- Q.5** (a) Explain Different propagation mechanisms in detail **07**
(b) Compare IEEE 802.11a, 802.11b, 802.11g standards **07**
- OR**
- Q.5** (a) Explain economic benefits of wireless networks **07**
(b) Explain the ATM protocol architecture with necessary block diagram **07**
