

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.

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|------------|---|-----------|
| 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 |
