

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-V • EXAMINATION – WINTER • 2014

**Subject Code: 2650016**

**Date: 08-12-2014**

**Subject Name: Wireless Communication Mobile**

**Time: 10:30 am - 01:00 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)** Give the full form of Any Seven following. **07**
- |           |          |
|-----------|----------|
| a. CEPT   | e. PDN   |
| b. GSM    | f. L2CAP |
| c. VLR    | g. WiMAX |
| d. MSISDN | h. MAC   |
- (b)** List and Explain GSM Entities. **07**
- Q.2 (a)** Describe the Protocol Stack of Bluetooth. **07**
- (b)** What are the differences between middleware and gateways? Enunciate with examples in the context of Mobile Computing? **07**
- OR**
- (b)** Describe the significance of core, edge, and access network. Explain their functions as well. **07**
- Q.3 (a)** What is a PLMN? How is PLMN connected to PSTN and PDN? **07**
- (b)** Explain the architecture of SMS. **07**
- OR**
- Q.3 (a)** What is MMS? Describe the MMS architecture. **07**
- (b)** What are the different elements in a VoIP architecture where a call is originated in IP through SIP and terminating into an IP phone in an IP network? **07**
- Q.4 (a)** What are the advantages and disadvantages of Wireless LAN? Under what situation is a WLAN desirable over LAN? **07**
- (b)** Explain the security framework for mobile computing. How do we ensure security in a mobile environment through Mobile VPN? **07**
- OR**
- Q.4 (a)** How is data routing done in GPRS? In what respect is data routing different from voice routing? **07**
- (b)** Explain the Direct Sequence Spread Spectrum Techniques. **07**
- Q.5 (a)** Explain WiMAX three layer architecture. **07**
- (b)** Describe the WAP protocol stack while enumerating the functions of different layers. **07**
- OR**
- Q.5 (a)** Compare the WiFi and 3G Technologies **07**
- (b)** Describe CDMA data protocol Stack. **07**

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