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
b. GSM
c. VLR
d. MSISDN
e. PDN
f. L2CAP
g. WiMAX
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 M MS? 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 Slack. **07**

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