

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VII(OLD) • EXAMINATION – WINTER 2016**

**Subject Code: 170702N**

**Date: 01/12/2016**

**Subject Name: Wireless Communication & Mobile Programming (w.e.f June 2012)**

**Time: 10:30 AM to 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)** What is mobile computing? Explain the mobile computing functions in detail. **07**

**(b)** Draw and explain the three tier architecture of mobile computing. **07**

**Q.2 (a)** Explain call routing in GSM. **07**

**(b)** Draw and explain the Bluetooth protocol stack. **07**

**OR**

**(b)** What do you mean by mobile IP? How does mobile IP work? **07**

**Q.3 (a)** What is a PLMN? How is a PLMN connected to PSTN and PDN? **07**

**(b)** Explain the value added services through SMS. **07**

**OR**

**Q.3 (a)** Explain the followings: **07**

**(i)** Indirect TCP

**(ii)** Mobile TCP

**(b)** Explain the handover procedure in GSM system. **07**

**Q.4 (a)** Describe the applications for GPRS. **07**

**(b)** Explain the limitations of GPRS. **07**

**OR**

**Q.4 (a)** What is the difference between GSM and GPRS? What are the network elements in GPRS that are different from GSM? **07**

**(b)** Explain the data routing in GPRS. **07**

**Q.5 (a)** Write a short note on: WAP **07**

**(b)** Explain 3G networks. How is a 3G network different from a 2G CDMA network? **07**

**OR**

**Q.5 (a)** What is MMS? Describe the MMS architecture. **07**

**(b)** Explain H.323 framework for voice over IP. **07**

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