

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER-VII • EXAMINATION – SUMMER 2014

Subject Code: 170702N

Date: 03-06-2014

Subject Name: Wireless Communication and Mobile Programming

Time: 02:30pm-05:00pm

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 three tier architecture of conventional mobile computing. **07**
(b) Draw the Bluetooth protocol stack and explain the host controller interface. **07**
- Q.2** (a) Explain call routing in GSM with block diagram. **07**
(b) What is a mobile IP? Explain discovery, registration and tunneling with mobile IP. **07**
- OR**
- (b) What is cellular IP? Establish its relationship with mobile IP. **07**
- Q.3** (a) List and explain the strengths of SMS. **07**
(b) Draw and explain GPRS architecture. **07**
- OR**
- Q.3** (a) Explain routing between PLMNs for GPRS system. **07**
(b) What is WAE? Draw its model with client, gateway and server. **07**
- Q.4** (a) Discuss the WAP gateway for coding and encoding. **07**
(b) What is spread spectrum technology? Compare it with narrow band. **07**
- OR**
- Q.4** (a) How authentication is possible in wireless LAN? List and discuss the possible attacks on such networks. **07**
(b) Define Mobile Ad hoc Networks. Discuss its characteristics and limitations. **07**
- Q.5** Attempt **ANY FOUR** **14**
(a) RFID
(b) BSS
(c) Handover in GSM
(d) Application and tunneling modes in GPRS
(e) WiFi v/s WiMax.
(f) Role of Mobile Computing OS.
