GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. IST Semester–Remedial Examination – July- 2011

Subject code: 712304N
Subject Name: Ubiquitous Computing

Date:12/07/2011   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)**	Draw and explain the GSM architecture in detail.	07
	(b)	Compare direct sequence spread spectrum and frequency hoping spread spectrum	07
Q.2	**(a)**	Write note on advantages and disadvantages of Wireless LAN	07
	(b)	Compare infra red vs radio transmission	07

OR

	(b)	Explain IEEE 802.11 standard	07
Q.3	**(a)**	Describe infrastructure and ad-hoc networks	07
	(b)	What is the need of mobile IP? Explain dynamic host configuration protocol	07

OR

Q.3	**(a)**	Compare traditional TCP and classical TCP for mobile transport layer	07
	(b)	Write note on TCP over 2.5 and 3G networks	07
Q.4	**(a)**	Describe WAP layers	07
	(b)	Describe any one mobile operating system and explain how they are different than the computer based operating system.	07

OR

Q.4	**(a)**	Write short note on wireless network simulators	07
	(b)	Explain Bluetooth protocol stack with figure	07
Q.5	**(a)**	Explain time division multiplexing and code division multiplexing	07
	(b)	Write note on wireless sensor networks	07

OR

Q.5	**(a)**	Describe mobile originated to mobile terminated call set up in GSM	07
	(b)	Explain security in GSM	07

****