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.	

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