Seat N	lo.:			
		GUJARAT TECHNOLOGICAL UNIVERSITY		
Cubi	BE- VII th SEMESTER-EXAMINATION – MAY/JUNE- 2012			
•	Subject code: 170702 Date: 08/06/2012 Subject Name: Mobile Computing			
•		80 pm – 05:00 pm Total Marks: 70		
	uctio	•		
		npt all questions.		
		e suitable assumptions wherever necessary.		
	_	res to the right indicate full marks.	7	
Q.1	(a) (b)	Explain the differences between 1G, 2G, 2.5G and 3G mobile communications. Explain the functioning of cellular network. How the given set of frequencies are used to increase the capacity of a network.	7 7	
Q.2	(a)	What are the different tiers in three tier architecture of mobile computing? Describe the functions of these tiers.	7	
	(b)	Explain the following Multiple Access Techniques used to access the channel by mobile subscriber.	7	
		Frequency Division Multiple access.Space Division Multiple access.		
		OR		
	(b)	Explain the following Multiple Access Techniques used to access the channel by mobile subscriber. • Time Division Multiple access. • Code Division Multiple access.	7	
Q.3	(a)	What is piconet? What is scatternet? Explain how they form in Bluetooth radio technology? Also give the answer of following questions. 1. Which ISM frequency band it is use? 2. How many maximum channel it is support? 3. How many maximum slave can be communicate with Master at a time?	8	
	(b)	Differentiate the WiMAX and WiFi Technologies. OR	6	
Q.3	(a)	 Explain following protocol used in the Bluetooth technology Link Manager Protocol. Logical Link Control and Adaptation Protocol. Service Discovery protocol. RFCOMM 	8	
	(b)	Explain the three limitations of IPv4 that are overcome by IPv6.	6	
Q.4	(a)	What are limitations of traditional IP to support the mobile technology? How does Mobile IP works?	8	
	(b)	What are HLR and VLR? Describe its functions in call routing and roaming. OR	6	
Q.4	(a) (b)	Explain the Indirect and Snooping TCP. What is the difference between SM-MT and SM-MO? Explain.	8	