GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 170702   **Date: 22/11/2011**
Subject Name: Mobile Computing
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)**	Explain functional architecture of GSM system. And also give different tele-services provided by GSM.	07
	(b)	Explain about indirect & snooping TCP. Also give any two advantages of mobile TCP.	07
Q.2	**(a)**	Explain concept of Bluetooth Architecture. What is the difference between infrastructure and ad-hoc networks?	07
	(b)	Explain functional architecture of GPRS system. What is the frequency range of uplink and downlink in GPRS network?	07

OR

	(b)	Define frequency hopping in spread spectrum? Write Note on TDMA , FDMA , CDMA	07
Q.3	**(a)**	What are the possible handover scenarios in GSM? List out the numbers needed to locate a Mobile Station and to address the Mobile station	07
	(b)	Draw the mobile computing layer architecture of a car with GPS receiver , WAP , automatic parking lights control, smart-card based start and speech recognition.	07

OR

Q.3	**(a)**	Mention some of the advantages and dis advantages of WLANS? Mention the design goals of WLANS?	07
	(b)	Explain MANET (Mobile adhoc network) and issues with moving node in network.	07
Q.4	**(a)**	Explain RFID and DECT	07
	(b)	What is VoIP? Compare H.323 and SIP	07

OR

Q.4	**(a)**	Compare Wifi Vs. 3G and also discuss wireless LAN security issues.	07
	(b)	Push and Pull in Short Messaging Service	07
Q.5	**(a)**	Explain : Routing in IPv6	07
	(b)	Applications of GPRS and VoIP	07

OR

Q.5	**(a)**	Explain tunneling and encapsulation in mobile IP.	07
	(b)	State the requirements of WAP and explain different layers of WAP. What are the advantages of WML Script over WML?	07

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