Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

		code: 2725305 Date: 23-06-2014	
Subject Name: Mobile Communication Technologies Time: 02:30 pm - 05:00 pm Instructions: Total Marks: 7			
11150	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Discuss process of GSM calling to mobile station. Explain GSM system architecture.	07 07
Q.2	(a) (b)	What is frequency reuse? What are the Mobile Wireless TDMA Design Considerations?	07 07
	(b)	OR What are the design challenges for wireless networks?	07
Q.3	(a)	Whether a data link protocol such as IEEE 802.11 can assist TCP in remaining effective in mobile and wireless networks? Explain the same.	07
	(b)	Write short note on HLR and VLR? OR	07
Q.3	(a)	Differentiate between back-off mechanism of CSMA/CD (802.3) and CSMA/CA (802.11)?	07
	(b)	What are the pros and cons of taking larger size contention window from the start in 802.11?	07
Q.4	(a)	Explain the utilization of Fast-Retransmit and Fast-Recovery while adapting TCP for wireless and mobile setup.	07
	(b)	Explain the hand over procedure for GSM. OR	07
Q.4	(a) (b)	Show the interaction of Mobile IP with Snoop- TCP. How it is helpful in designing transport layer for wireless and mobile scenario?	07 07
Q.5	(a) (b)	Describe OFDM. Why the reverse tunneling is required in Mobile IP? OR	07 07
Q.5	(a)	Describe the problems when CSMA/CD is applied to wireless networks. What method could solve the problems? Describe how it works.	07
	(b)	List the entities of mobile IP?	07
