Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – WINTER 2012

Subject code: 725305 **Date: 02/01/2013**

Subject Name: Mobile Communication Technologies

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)**	What are the advantages and disadvantages of dynamic channel assignment strategy over fixed channel assignment?	**07**
	(b)	Explain the concept of cell splitting with diagram.	**07**
Q.2	**(a)**	Explain: (i) Umbrella cell concept (ii) Grade of service (GOS)	**07**
	(b)	Draw and explain GSM architecture.	**07**
		OR	
	(b)	Explain GSM channels in brief.	**07**
Q.3	**(a)**	What is signaling protocol structure in GSM? Explain.	**07**
	(b)	Write a short note on GPRS.	**07**
		OR	
Q.3	**(a)**	Compare TCP reno and TCP vegas.	**07**
	(b)	Give advantages and disadvantages of indirect, snoop and mobile TCP.	**07**
Q.4	**(a)**	Explain mobile IP and two level addressing schemes in terms of IP addressing.	**07**
	(b)	Describe IP-in-IP encapsulation method for mobile IP.	**07**
		OR	
Q.4	**(a)**	Compare first generation (1G) and second generation (2G) wireless networks.	**07**
	(b)	Write a short note on Advanced Mobile Phone System (AMPS).	**07**
Q.5	**(a)**	For W-CDMA, what are different physical layer issues? Also explain WCDMA physical layer characteristics.	**07**
	(b)	Write a short note on 3G service classes and applications.	**07**
		OR	
Q.5	**(a)**	Explain Vehicular Ad-hoc Network (VANET) in detail.	**07**
	(b)	What are message passing and message queuing? Explain.	**07**

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