Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject code: 1720101 **Date: 29/12/2012**

Subject Name: Wireless Networking & 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)**	Draw and explain DSSS transmitter and DSSS receiver.	**07**
	(b)	What are the features desired in a mobile OS as compared to a desktop PC?	**07**
Q.2	**(a)**	Explain the requirements of a mobile file system over the conventional one. Describe CODA file system.	**07**
	(b)	Describe advantages and disadvantages of Snooping TCP and Mobile TCP.	**07**
		OR	
	(b)	Explain the configuration parameters to adapt TCP to wireless environments.	**07**
Q.3	**(a)**	Describe WAE logical model.	**07**
	(b)	Explain how tunneling works in general and especially for mobile IP using IP-in-IP and minimal respectively. Discuss the advantages and disadvantages of these methods.	**07**
		OR	
Q.3	**(a)**	What are the differences between AODV and the standard distance vector algorithm? Why are extensions needed?	**07**
	(b)	Describe WTA logical architecture.	**07**
Q.4	**(a)**	What are typical data rates in DECT? How are they achieved considering the TDMA frames? What multiplexing schemes are applied in DECT and for what purposes? Compare the complexity of DECT with that of GSM.	**07**
	(b)	Explain Advanced phase shift keying in detail.	**07**
		OR	
Q.4	**(a)**	What are the functions of authentication and encryption in GSM? How is system security maintained?	**07**
	(b)	Discuss various types of coding methods in CDMA.	**07**
Q.5	**(a)**	Explain IEEE 802.11 protocol architecture and bridging. Why is the PHY layer in IEEE 802.11 subdivided?	**07**
	(b)	Which basic features are included in WML? Which capabilities not supported by WML are offered by WMLScript?	**07**
		OR	
Q.5	**(a)**	What are advantages and problems of forwarding mechanisms in Bluetooth networks regarding security, power saving and network stability?	**07**
	(b)	Explain WAP 2.0 architecture.	**07**

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