Sea	at No.	Enrolment No.	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
	ME - SEMESTER- I (OLD course) • EXAMINATION - SUMMER 2015		
Subject Code: 712304 Date: 16/0			15
Su	Subject Name: Ubiquitous Computing		
Time: 10:30 am to 1:00 pm Total Marks:			<b>70</b>
Instructions:			
<ol> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> </ol>			
3. Figures to the right indicate full marks.			
Q.1		Answer the following questions.	14
		1. CDMA v/s GSM	
		<ul><li>2. Write in brief: XHTML-MP.</li><li>3. How frequency is effectively used in GSM?</li></ul>	
		4. Draw GSM Hyper- frame Structure Hierarchy.	
		5. Write in brief: Directive effects of real antennas.	
		6. Compare: Infra-Red and Radio Transmission	
		7. What is selective retransmission?	
<b>Q.2</b>	(a)	Describe all components of GSM System Architecture with its subsystem	07
	<b>(1.)</b>	functionalities.	0.5
	<b>(b)</b>	What is Spread Spectrum technology? Compare working of DSSS and FHSS in detail.	07
		OR	
	<b>(b)</b>	How Snooping TCP gets implemented? Explain their advantages.	07
Q.3	(a)	Give advantages of Bluetooth technology. Explain Bluetooth protocol stack	07
	. ,	architecture.	
	<b>(b)</b>	In TCP over 2.5G/3G wireless, What characteristics have to be considered and	07
		parameters to be adapted when applications gets deployed?  OR	
Q.3	(a)	Discuss DECT protocol architecture along with its frame structure.	07
	(b)	Draw and write IEEE 802.11 MAC frame structure with its control field and	07
		their significance.	
Q.4	(a)	Discuss how orthogonal codes and autocorrelation works in CDMA with a	07
	` ′	suitable sender-receiver example.	
	<b>(b)</b>	What is MAC management in IEEE 802.11? Explain synchronization and	07
		power management into it.  OR	
Q.4	(a)	What are WML features? What are the additional capabilities offered by WML	07
ζ	()	Script than WML?	0.
	<b>(b)</b>	Answer the following questions.	07
		1. Explain functional aspects of Mobile IP.	
		2. What are security issues in Mobile Computing?	
Q.5	(a)	Explain DHCP protocol architecture in detail.	07
	<b>(b)</b>	List layers of WAP. Explain role of WAP 2.0 architecture into it.	07
Q.5	(a)	OR Answer the following questions.	
~···	()	Write a note on Wireless Sensor Networks.	04
		2. Write a note on Multipath propagation.	03
	<b>(b)</b>	Answer the following questions.	Λ.4
		<ol> <li>What are Handover types in GSM?</li> <li>Write in brief: Indirect TCP.</li> </ol>	04 03
		2. WIRE III DIEL, HUREL ICE.	UJ