Seat No.:	Enrolment No.

Subject Code: 740401

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**ME - SEMESTER-IV • EXAMINATION - SUMMER 2015** 

Date: 01/05/2015

Su	bject	Name: Wireless and Mobile Network Architecture	
		2:30 pm to 5:00 pm Total Marks: 7	<b>70</b>
Ins		Attempt all questions.  Make suitable assumptions wherever necessary.	
Q.1	(a)		0.4
	(1)	On the basis of which channel measurements, the Hand-off decision should be made? Why?	04
	(2)	Compare window averaging and leaky-bucket integration methods of filtering channel measurements.	03
	(b) (1)	Compare Non Prioritized Scheme and Reserved Channel Scheme of channel assignment. Under what circumstances is the reserved channel scheme (RCS) more desirable than the others?	04
	(2)	What does the term GTT refer to? When is GTT needed?	03
Q.2	(a) (1) (2) (b)	Compare Soft Hand-off with Hard Hand-off. Compare MCHO and MAHO link transfer procedures.  Describe the different package and component types in a TCAP message.  OR	04 03 07
	(b)	Describe the PACS architecture and the network interfaces.	07
Q.3	(a) (b)	*	07 07
Q.3	(a)	OR  Describe the Adaptive algorithm AA1 for automatic selection of sharing scheme	07
Ų.J	(a)	in real time.	
	<b>(b)</b>	, , , , , , , , , , , , , , , , , , , ,	07
Q.4	(a) (b)		07 07
Q.4	(a) (b)	Describe the main parts of GSM SMS protocol stack. Explain the operation of Mobile-IP.	07 07
Q.5	(a) (1) (2) (b)	What is GPRS? Explain its architecture.  Describe GSM administration and maintenance.	04 03
	(1) (2)	Describe the WAP protocol stack.  Draw the message flow for the GPRS attach and detached procedures.  OR	03 04
Q.5	(a) (b)	How does a WLL system work? Compare W-CDMA and cdma2000 and explain quality of service in 3G.	07 07