Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER IV (NEW) – • EXAMINATION – WINTER 2016

Subject Code: 740401 **Date: 26/10/2016**

Subject Name: Wireless and Mobile Network Architectures

Time:02:30 pm to 05:00 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)**	Describe the various data services used in GSM.	**07**
	(b)	Describe International GSM call set-up procedure.	**07**
Q.2	**(a)**	Draw and explain GSM Network Architecture.	**07**
	(b)	Explain in detail with diagram GSM MAP dialogue message flow.	**07**
		OR	
	(b)	What is the information stored in HLR and VLR in GSM network? Describe VLR fault restoration process.	**07**
Q.3	**(a)**	Enlist the different GPRS network nodes and explain each of them in detail.	**07**
	(b)	Describe four major technologies for WLL systems. What are the advantages and disadvantages of these approaches?	**07**
		OR	
Q.3	**(a)**	State different GPRS procedures and explain one of them in detail.	**07**
	(b)	Explain in detail "WAP network architecture".	**07**
Q.4	**(a)**	Write a short note on 3G mobile services.	**07**
	(b)	Explain with the help of block diagram, the operation of the CDPD network architecture.	**07**
		OR	
Q.4	**(a)**	Explain mobility support for IPv6.	**07**
	(b)	What is PACS network signaling? Describe different elements of it.	**07**
Q.5	**(a)**	Write short notes on "Signaling System SS7".	**07**
	(b)	State the schemes of IS-41 authentication and explain one of them in detail.	**07**
		OR	
Q.5	**(a)**	Explain Hand-Off strategies in detail.	**07**
	(b)	Describe how security is incorporated in GSM system.	**07**

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