Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject code: 712305N **Date: 24-06-2014**

Subject Name: Distributed Computing

Time: 02:30 pm - 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)**	Define Distributed System and Discuss briefly the various issues related to distributed system design.	**07**
	(b)	i. Compare between distributed systems and parallel systems. Which is better and in which condition?	**03**
		ii. Compare shared memory and distributed memory architectures.	**04**
Q.2	**(a)**	Explain Client-Server Model	**07**
	(b)	What is the significance of client-server binding? How various issues handled in changing client-server binding?	**07**
		OR	
	(b)	Compare RPC and RMI with respect to implementation.	**07**
Q.3	**(a)**	What is RMI? What are the main features of Java RMI? Discuss the various components and the process of RMI execution.	**07**
	(b)	Explain parallel virtual machines.	**07**
		OR	
Q.3	**(a)**	Explain the significance of RMI in distributed systems.	**07**
	(b)	Explain Multithreading in Java	**07**
Q.4	**(a)**	Explain and compare J2EE and .Net Distributed application.	**07**
	(b)	Explain Message Passing Interface	**07**
		OR	
Q.4	**(a)**	Write the advantages of XML and also explain API for XML processing.	**07**
Q.4	**(b)**	What is middleware? Explain its significance in Distributed Computing	**07**
Q.5	**(a)**	Explain with example Elements of following web services protocol. (1) SOAP (2) WSDL	**07**
	(b)	Compare Cluster Computing and Grid Computing also relate them with Distributed Computing	**07**
		OR	
Q.5	**(a)**	Explain CORBA in brief	**07**
	(b)	Explain Cloud Computing with respect to Distributed Computing	**07**

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