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Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER–IV • EXAMINATION – SUMMER • 2014

Subject Code: 640006 **Date: 03-06-2014**

Subject Name: Distributed Computing (DC1)

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)**	List various paradigms for distributed applications and explain any one.	**07**
	(b)	Discuss the strength and weaknesses of Distributed Computing.	**07**
Q.2	**(a)**	Explain various form of computing.	**07**
	(b)	Explain steps for building an RMI application.	**07**
		OR	
	(b)	Write a note on data representation and data encoding.	**07**
Q.3	**(a)**	Write a short note on the following. (i) Concurrent Programming. (ii) The internet network architecture.	**07**
	(b)	Explain the following Java RMI terms: Remote, stub, skeleton, rmiregistry	**07**
		OR	
Q.3	**(a)**	Explain iterative server, concurrent server, and stateful server.	**07**
	(b)	Differentiate the following. a. Connectionless versus Connection oriented Multicast b. Reliable Multicasting Versus Unreliable Multicasting	**07**
Q.4	**(a)**	Explain reliable multicasting. Discuss any 3 classifications of reliable multicast systems.	**07**
	(b)	Write a program which uses a multicast socket to sends a single message to a multicast group and joins a multicast group and receives a single message send to the group.	**07**
		OR	
Q.4	**(a)**	Write a short note on REST.	**07**
	(b)	Write a program which sends a message and receives a message using connectionless datagram socket.	**07**
Q.5	**(a)**	What is RMI? Draw and explain Java RMI architecture. Show stub skeleton interactions using interaction diagram.	**07**
	(b)	Explain the role of WSDL in SOA.	**07**
		OR	
Q.5	**(a)**	Explain how hidden form-fields can be used for transferring session state data. Draw appropriate event/interaction diagram.	**07**
	(b)	Explain the Naming Service and basic architecture of CORBA.	**07**

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