Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER–IV • EXAMINATION – SUMMER • 2015

Subject Code: 640006 Date: 20-05-2015

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)**	What is servlet?	**02**
	(b)	What do you mean by toolkits?	**02**
	(c)	XNS Stands for?	**02**
	(d)	The main purpose of RFC 1 was?	**02**
	(e)	What do you mean by child process?	**02**
	(f)	What is the mean of network services?	**02**
	(g)	What is data marshalling	**02**
Q.2	**(a)**	Define Distributed Computing. Briefly explain following terms: Monolithic Computing, distributed Computing, Parallel Computing.	**07**
	(b)	What do you mean by concurrent programming? Explain three types of concurrent programming.	**07**
		OR	
	(b)	Briefly explain distributed application architecture and network resources .	**07**
Q.3	**(a)**	Explain message system paradigm with its subtypes.	**07**
	(b)	What is JAVA multicast API & reliable multicast? Write a short definition with example any two reliable multicast techniques?	**07**
		OR	
Q.3	**(a)**	Explain Mobile Agent paradigm and ORB paradigm in detail.	**07**
	(b)	What is IPC? Explain briefly? Explain an Archetypal IPC Program Interface.	**07**
Q.4	**(a)**	What do you mean by paradigm? Explain distributed system paradigms and their level of abstraction.	**07**
	(b)	Briefly explain stateful server and stateless server.	07
		OR	
Q.4	(a)	Explain Datagram Sockets and its implementation in Java.	07
	(b)	What is RPC? Write an algorithm for developing a RMI application and testing & debugging technique?	07
Q.5	(a)	Discuss the SOAP Model. How request is handled by SOAP?	07
	(b)	Write a short note on Cookies for transferring session state data.	07
		OR	
Q.5	(a)	What is REST? What is the use of REST? Explain any 3 basic principals possessed by Restful service	07

(b) Define CORBA and CORBA architecture? Explain the following terms related to CORBA: 07

A. IIOP

B. IOR

C. POA

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