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

- (b) Define CORBA and CORBA architecture? Explain the following terms related to CORBA:
 - A. IIOP
 - B. IOR
 - C. POA

07