

GUJARAT TECHNOLOGICAL UNIVERSITY**ME - SEMESTER– II (Old course)• REMEDIAL EXAMINATION – SUMMER 2015****Subject Code: 1720102****Date:13/05/2015****Subject Name: Distributed Computing & Application****Time: 02:30 pm to 5:00 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 Distributed Computing? Discuss the design issues of DC. 07
- (B) Illustrate with proper example how RMI differ from RPC? Is RPC and RMI action oriented or data oriented? How? 07
- Q: 2 (A) What are the main strengths and weaknesses of CORBA with comparison to Java RMI? 07
- (B) What do you mean by data heterogeneity? List and explain the common mechanisms to handle it. 07
- OR
- (B) Discuss synchronous and asynchronous in detail with event diagrams for all three scenarios. 07
- Q: 3 (A) Explain ORB and Naming system with respect to CORBA. 07
- (B) Draw and explain the architecture of J2EE. Also list the major component and services of J2EE.2 07
- OR
- Q: 3 (A) What is prepared Statement in JDBC? How does it differ from statement object? Show its use with suitable example. 07
- (B) How Distributed Computing differs from Parallel Computing? What is MPI and what is its role? 07
- Q: 4 (A) Explain the roles of WSDL and UDDI in web service. 07
- (B) Compare Parallel and Distributed computing. What is MPI and Open MP? Write a program to subtract two matrix using MPI. 07
- OR
- Q: 4 (A) What is DTD? Explain with suitable example how to refer DTD file in XML file. 07
- (B) Discuss cluster computing and grid computing in detail. 07
- Q: 5 (A) Write a program to create Employee class with EID, name, salary and designation member variables. Also write main program to save and read objects of Employee class in file. 07
- (B) Write client server program in which client sends one number to server and server replies the factorial of that number. (USE JAVA SOCKET PROGRAMMING API) 07

- Q:5 (A) Write RMI program in which client sends one number to server and server replies that number is "PRIME" or not. (USE JAVA RMI API) 07
- (B) Write a Servlet and other related files to count number of characters in a given input string. 07