

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. **07**
 (i) Concurrent Programming.
 (ii) The internet network architecture.
 (b) Explain the following Java RMI terms: **07**
 Remote, stub, skeleton, rmiregistry
- OR**
- Q.3** (a) Explain iterative server, concurrent server, and stateful server. **07**
 (b) Differentiate the following. **07**
 a. Connectionless versus Connection oriented Multicast
 b. Reliable Multicasting Versus Unreliable Multicasting
- 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**
