

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-IV • EXAMINATION – SUMMER • 2015

Subject Code: 2640006

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) Attempt the following (Any 7) 07**
- i. What is Distributed Computing?
 - ii. What is Monolithic Computing?
 - iii. What is Co-operative Computing?
 - iv. What do you mean by Paradigm?
 - v. What is indefinite blocking?
 - vi. Why timeout is required?
 - vii. What is Data Marshalling?
 - viii. Differentiate HTML Vs XML.
- (b) i. Discuss Strength and weakness of Distributed Computing. 05**
- ii. What is the use of XQuery? 02**
- Q.2 (a) Explain Inter-Process Communication. Discuss event synchronization in the following modes of IPC. 07**
- i. Asynchronous Send and Asynchronous Receive
 - ii. Synchronous Send and Asynchronous Receive
- (b) Differentiate the Following**
- i. Reliable Multicast Vs Unreliable Multicast **04**
 - ii. Iterative Server Vs Concurrent Server **03**
- OR**
- (b) Differentiate the Following**
- i. Connection-less IPC Vs Connection Oriented IPC **04**
 - ii. Stateful Server Vs Stateless Server **03**
- Q.3 (a) Explain Peer to Peer Paradigm and Message System Paradigm. 07**
- (b) Explain with complete example program: How to 07**
- i. Join to a multicast group?
 - ii. Send and Receive a DatagramPacket to a multicast group?
- OR**
- Q.3 (a) Explain Message Passing Paradigm and Mobile Agent Paradigm. 07**
- (b) What is reliable multicasting? Discuss classification of reliable multicast systems. 07**
- Q.4 (a) Write a java code to implement Simple DayTime Server program using Stream Socket API. 07**
- (b) Explain how hidden form-fields can be used for transferring session state data. 07**
- OR**
- Q.4 (a) With Diagram and code fragment, explain connectionless datagram socket. 07**
- (b) What is RMI? With suitable example discuss the implementation of Java RMI on server. (With Steps for building an RMI Application). 07**
- Q.5 (a) What is XPath? Explain Navigating XML Trees with XPath. 07**
- (b) With code fragment explain how to get EIS record from REST service without using JWS? 07**

OR

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| Q.5 | (a) | Compare SOAP Web Services and RESTful Web Services with Example. | 07 |
| | (b) | a. Differentiate HttpURLConnection Vs JAX-WS Version | 03 |
| | | b. What is WSDL? Explain role of WSDL in SOA integration. | 04 |
