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

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**

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