GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – IV • EXAMINATION – SUMMER 2018

Subject Code: 640006   **Date: 30-May-2018**

Subject Name: Distributed Computing (DC1)

Time: 10.30 am to 1.00 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. WSDL stands for _____.	
		ii. When Communication from one process to single other process, the IPC is said to be a _____.	
		iii. RPC stands for _____.	
		iv. A threaded connection-oriented server is said to be _____ server.	
		v. SETI is an example of _____ computing.	
		vi. CORBA stands for _____.	
		vii. ORBD stands for _____.	
		viii. ASN stands for _____.	
	(b)	What is Distributed Computing? Explain strengths and weakness of distributed Computing.	**07**
Q.2	**(a)**	Explain indefinite blocking. Discuss event synchronization in the following modes of IPC. 1. Asynchronous Send and Asynchronous Receive 2. Synchronous Send and Synchronous Receive 3. Synchronous Send and Asynchronous Receive	**07**
	(b)	With suitable example discuss the implementation of Java RMI on server. (With Steps for building an RMI Application)	**07**
		OR	
	(b)	What is RMI? Describe java RMI Architecture. What is the role of rmiregistry?	**07**
Q.3	**(a)**	Explain Mobile Agent Paradigm and Collaborative Application Paradigm with suitable figures.	**07**
	(b)	Explain Stream Socket API with an example.	**07**
		OR	
Q.3	**(a)**	Explain Peer-to-Peer and Message System Paradigm with suitable figures.	**07**
	(b)	Explain the use of Secure Socket API with an example.	**07**
Q.4	**(a)**	Write and explain simple DayTimeServer Program using Datagram Socket API.	**07**
	(b)	What is reliable multicasting? Discuss classification of reliable multicast systems.	**07**
		OR	
Q.4	**(a)**	According to three layer software architecture, explain daytime client-server using Stream Socket with UML diagram and program flow.	**07**
	(b)	Explain with complete example program: How to I. Join to a multicast group? II. Send and Receive a DatagramPacket to a multicast group?	**07**
Q.5	**(a)**	Compare SOAP Web Services and RESTful Web Services with Example	**07**

(b) Discuss the basic architecture of CORBA, its object interface, object references, server and clients in detail with diagram. **07**

OR

Q.5 **(a)** With code fragment explain how to get EIS record from REST service without using JWS? **07**

(b) Discuss how to transfer session state data using cookies. **07**

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