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Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER- IV • EXAMINATION - WINTER 2015

Subject Code: 2640006 Subject Name: Distributed Computing (DC1) Time: 10.30 a.m.To 01.00 p.m. Instructions:			Date:09/12/20	Date:09/12/2015 Total Marks: 70	
	2. Make	npt all questions. e suitable assumptions wherever res to the right indicate full mar			
Q.1		The situation which arises which an one client is known as a) Race Condition b) Deadlock	hile fighting for the same resource by more c) Peer-to-peer communication d) Resource Sharing	07	
	2.	,	c) connect d) achieve		
	3.	Which of the following paradigm? a) Message Passing Application b) Collaborative Applessage Passing c) Object Request Broadplication	artial sequence is correct for Distributed → Object Request Broker → Collaborative Dication → Object Request Broker → Oker → Message Passing → Collaborative Dication → Message Passing → Object		
	4.	The method of Socket class data is known as a) getOutputStream() b) getInputStream()	which is used set the stream for receiving c) setSoTimeout() d) setRecevingStream()		
	5.	required data to the calling pr a) Presentation Layer			
	6.	Which of the following range a) 422.0.0.0 to 239.255 b) 224.0.0.0 to 239.255	255.255 c) 244.0.0.0 to 239.255.255.255		
	7.	XML schema used for spec data types is known as a) XML b) DTD	cifying restrictions and allows customized c) XSLT d) XSD		

	(b)	 In RMI "lookup()" method is used to retrieve the object reference. WebServices are always utilized for returning presentation logic. XSLT can be utilized for creating Schema files. Most of the operations over HTTP are Synchronous Send and Asynchronous Receive. Stream Sockets can be utilized for creating connectionless as well as connection-oriented communication. The method which is used to join multicast group is "joinMulticastGroup()". SOAP method call is encoded in XML and then embedded in an HTTP request. 	0 7	
Q.2	(a) (b)	Briefly explain strengths and weakness of Distributed Computing Explain the difference between Connection-oriented and Connectionless Communication OR	07 07	
	(b)	Explain the difference between Client-server and Peer-to-peer paradigm	07	
Q.3	(a)	Write program for Connection Requestor and Connection Acceptor using connectionless mechanism i.e. Datagram Sockets	07	
	(b)	Briefly explain Interprocess Communication and Event Synchronization	07	
Q.3	(a)	Write program for Connection Requestor and Connection Acceptor using connection-oriented mechanism i.e. Stream Sockets	07	
	(b)	 Explain the difference between Iterative and Concurrent Server Explain the difference between Stateful and Stateless Server 	04 03	
Q.4	(a)	What do you mean by Reliable Multicasting? Explain various types of reliable multicasting techniques	07	
	(b)	Briefly explain Java RMI Architecture in detail. OR	07	
Q.4	(a) (b)	Explain various mechanisms for sharing session data among CGI scripts. Describe transferring session state data using cookies with the help of diagram.		
Q.5	(a) (b)	Explain various XQuery functions used for XML documents.		
Q.5	(a)	Create XSD file to map XML tags as per following structure. <students> <stud id="101"> <name> </name> <gender> </gender> <age> </age> </stud> Consider some restrictions while creating XSD file as follows - It should allow any no. of <stud> tags - "id" attribute should not be repeated and must be an integer value - "name" element is string which can be any value - "gender" element should allow only "m", "M", "f" or "F"</stud></students>	07	

- "age" must be an integer value between 15 to 35
- (b) What is SOAP? Explain the simple layout of SOAP request message 07
