

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-IV • EXAMINATION – WINTER 2017

Subject Code : 2640006

Date: 06-01-2018

Subject Name: Distributed Computing

Time: 02:30 pm to 05:00 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)** Answer in brief. 07
- i. What is Distributed Computing?
 - ii. What is Data Marshalling?
 - iii. What do you mean by Paradigm?
 - iv. What is Monolithic Computing?
 - v. What is XML?
 - vi. What is race condition?
 - vii. What is Servlet?
- (b)** Explain the following.
- i. Briefly explain the architecture of Distributed Application. 04
 - ii. Briefly explain HTTP event diagram. 03
- Q.2 (a)** Explain strengths and weakness of Distributed Computing. 07
- (b)** Explain the difference between Connection-oriented and Connectionless communication. 07
- OR**
- (b)** Explain Inter-process Communication. Discuss event synchronization in the following mode of IPC. 07
- i. Synchronous Send and Synchronous Receive
 - ii. Asynchronous Send and Asynchronous Receive
- Q.3 (a)** Differentiate the following.
- i. Stateful Server Vs Stateless Server 04
 - ii. Iterative Server Vs Concurrent Server 03
- (b)** Explain in detail Connectionless Datagram Socket API. 07
- OR**
- Q.3 (a)** Explain following paradigm in detail.
- i. Message System Paradigm 04
 - ii. Mobile Agent Paradigm 03
- (b)** Explain in detail Stream Mode Socket API. 07
- Q.4 (a)** What do you mean by Reliable Multicasting? Discuss any 3 classifications of Reliable Multicasting system. 07
- (b)** Explain how hidden form-fields can be used for transferring session state data. 07
- OR**
- Q.4 (a)** What is RMI? Draw and explain Java RMI architecture. 07
- (b)** What is Multicast? Explain Archetypal Multicast API. 07
- Q.5 (a)** Explain SOAP. Explain its architecture in detail. 07
- (b)** Explain XML Schema Definition in detail. 07
- OR**
- Q.5 (a)** What are Restful Web Services? Explain in detail. 07
- (b)** Describe XML PATH and XML Tree. 07