

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA– SEMESTER –IV EXAMINATION –SUMMER-2019

Subject Code:2640006

Date: 28-05-2019

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 **07**
- 1) What is Distributed Computing?
 - 2) What is IPC?
 - 3) What is Asynchronous send and Asynchronous Receive?
 - 4) What is indefinite blocking?
 - 5) What is Data Marshalling?
 - 6) Differentiate HTML with XML.
 - 7) What do you mean by Paradigm?
- (b)** 1) Explain in detail Stream Mode Socket API **07**
2) Explain Unreliable multicasting, Atomic Order Multicasting .
- Q.2 (a)** Draw the diagram that depicts level of abstraction for Distributed Application Paradigm. **07**
- (b)** Define Local Object and Distributed Object. Draw and explain Java RMI architecture. Show stub-skeleton interactions using interaction diagram. **07**
- OR**
- (b)** Write an algorithm for developing server-side and client-side software of RMI application. **07**
- Q.3 (a)** Explain event synchronization. Discuss event synchronization in the Synchronous Send and Asynchronous Receive modes of IPC. **07**
- (b)** Write and explain connection-oriented Echo Server client-server program. **07**
- OR**
- Q.3 (a)** Write a java code to implement Simple Day Time Server program using Stream Socket API. **07**
- (b)** Draw and explain Java RMI architecture. **07**
- Q.4 (a)** Explain SOAP. Compare SOAP WebServices and RESTful WebServices. **07**
- (b)** Differentiate the Following **07**
- i. Connection-less IPC Vs Connection Oriented IPC
 - ii. Stateful Server Vs Stateless Server
- OR**
- Q.4 (a)** Describe key methods of Datagram Socket API. Write code snippet for explaining datagram socket. **07**
- (b)** What is WSDL? Explain role of WSDL in SOA integration. **07**
- Q.5 (a)** With Diagram and code fragment, explain connectionless datagram socket. **07**
- (b)** What is XPath? Explain Navigating XML Trees with XPath. **07**
- OR**
- Q.5 (a)** How cookies can be used for transferring session state data? Draw and explain appropriate event/interaction diagram. **07**
- (b)** Differentiate between Iterative Server Vs Concurrent Server. **07**
