

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-1 (NEW) EXAMINATION – WINTER 2018

Subject Code: 3710213

Date: 04/01/2019

Subject Name: Distributed Systems

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 mark.

		MARKS
Q.1	(a) List out the Design issues in Distributed System	04
	(b) In What respect distributed system is better than parallel processing systems? Discuss real time application of distributed system.	03
	(c) Explain Election Algorithm for Synchronization in Distributed System.	07
Q.2	(a) What is threading? Explain Thread model in distributed System.	07
	(b) Explain JAVA RMI Architecture.	07
	OR	
	(b) Explain CORBA – ORB Architecture.	07
Q.3	(a) Differentiate between primitive and nonprimitive process migration. What are their relative advantages and disadvantages?	07
	(b) Discuss Client Server model in the context of distributed System.	07
	OR	
Q.3	(a) Explain the general architecture of DSM.	07
	(b) What is Deadlock? Explain four necessary conditions for a deadlock to occurs. Explain such conditions with example.	07
Q.4	(a) Discuss the stub downloading in JAVA RMI.	07
	(b) List file Accessing models. Discuss any two of them.	07
	OR	
Q.4	(a) Discuss Naming Services and Object Services in CORBA Architecture and how it is implemented in real time?	07
	(b) What is RPC? Discuss the challenges in its implementation.	07
Q.5	(a) Explain SOAP with its architecture.	07
	(b) What is a stub? How are stubs generated? Explain how the use of stubs help in making an RPC mechanism transparent.	07
	OR	
Q.5	(a) What is the main cause of thrashing in a DSM system? Discuss the methods to resolve thrashing problem in DSM system.	07
	(b) What is load balancing? List the load balancing techniques and discuss any two of them.	07