GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER–VIII (OLD) EXAMINATION – WINTER 2020

Subject Code:180701   Date:21/01/2021
Subject Name:Distributed Systems
Time:02:00 PM TO 04:00 PM   Total Marks: 56

Instructions:
1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full markss.

Q.1	**(a)**	Define Distributed system. Compare distributed computing models	**07**
	(b)	Explain merits and demerits of the various process addressing techniques	**07**
Q.2	**(a)**	Draw and explain ATM cell format	**07**
	(b)	Explain IPC Synchronization	**07**
Q.3	**(a)**	Explain RPC implementation	**07**
	(b)	Define causal ordering. Discuss the issues in designing load balancing algorithms	**07**
Q.4	**(a)**	List the main features of Java RMI. Discuss the various components and the process of RMI execution	**07**
	(b)	Explain the issues in designing load sharing algorithms	**07**
Q.5	**(a)**	Discuss and compare various election algorithms	**07**
	(b)	Explain four necessary and sufficient conditions for a deadlock to occur	**07**
Q.6	**(a)**	Categorize and compare mutual exclusion algorithms	**07**
	(b)	Explain asynchronous point to point message passing and asynchronous broadcast	**07**
Q.7	**(a)**	List the steps of Process Migration. Explain advantages of Process Migration	**07**
	(b)	Explain desirable features of a good naming system	**07**
Q.8	**(a)**	Explain design issues in DSM systems	**07**
	(b)	Explain various object-locating mechanisms in distributed systems	**07**

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