GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER–VI (NEW) EXAMINATION – WINTER 2020

Subject Code:2160710   **Date:01/02/2021**

Subject Name:Distributed operating system

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 marks.

Q.1	**(a)**	Define the following terms: file replication, file caching, fault tolerance.	**03**
	(b)	What is the goal to the build a distributed operating system?	**04**
	(c)	What are the difference between remote procedure call and local procedure call? Write the steps to Execute the Remote Procedure Call.	**07**
Q.2	**(a)**	Discuss about Reliable versus Unreliable Primitives.	**03**
	(b)	State the desirable features of a good message passing system.	**04**
	(c)	What is the significance of transparency in Distributed OS? List and explain types of transparency in brief.	**07**
Q.3	**(a)**	What is Marshaling and Un-marshaling of parameters?	**03**
	(b)	List the most common DOS architectures. Briefly explain any one.	**04**
	(c)	What is the process migration? Explain process migration in heterogeneous system.	**07**
Q.4	**(a)**	Explain Sequential consistency model with reference to DSM.	**03**
	(b)	What is DNS? Explain What are the Main Functions of Domain Names?	**04**
	(c)	Name and Explain the Various strategies are used to handle deadlocks in Distributed System.	**07**
Q.5	**(a)**	Describe various Access Control Mechanism.	**03**
	(b)	Draw architecture of SUN Network File System.	**04**
	(c)	What are the various issues in designing load balancing algorithm? Explain any two issues in detail.	**07**
Q.6	**(a)**	Define: thrashing, false sharing and buffering.	**03**
	(b)	Explain any one process scheduling algorithm.	**04**
	(c)	Explain Java RMI. What are the components and processes of Java RMI execution?	**07**
Q.7	**(a)**	List various methods used in catch management algorithms.	**03**
	(b)	Write the two approaches to attack a conventional encryption scheme.	**04**
	(c)	Sketch and explain the architecture of Web based system.	**07**
Q.8	**(a)**	Explain asynchronous point to point message passing with example.	**03**
	(b)	Differentiate stateless server and state full server.	**04**
	(c)	Explain implementation issues in distributed shared memory system.	**07**

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