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GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2160710   **Date:21/05/2019**
Subject Name:Distributed operating system
Time:10:30 AM TO 01:00 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)**	Define distributed operating system. Differentiate with normal OS.	**03**
	(b)	Explain blocking and non-blocking primitives.	**04**
	(c)	What is transparency? List its types for distributed systems.	**07**
Q.2	**(a)**	What is Marshaling and Un-marshaling of parameters?	**03**
	(b)	List the goals for security in DOS.	**04**
	(c)	Differentiate tightly coupled and loosely coupled microprocessor system.	**07**
		OR	
	(c)	Explain symmetric and asymmetric cryptosystems.	**07**
Q.3	**(a)**	Explain Token Ring Algorithm for Mutual Exclusion.	**03**
	(b)	Why we need load balancing? Discuss any two issues related to it.	**04**
	(c)	Explain shared memory architecture. Discuss strict sequential model for it.	**07**
		OR	
Q.3	**(a)**	What is the difference between replication and file caching?	**03**
	(b)	Draw architecture of SUN Network File System.	**04**
	(c)	What is Real Time Distributed System? Explain the types of Real Time Distributed Operating System.	**07**
Q.4	**(a)**	List various attacks on computer systems.	**03**
	(b)	Explain the replication for web hosting system	**04**
	(c)	List deadlock prevention method in DOS. Explain any one.	**07**
		OR	
Q.4	**(a)**	List various methods used in catch management algorithms.	**03**
	(b)	Explain Feistel Cipher techniques in detail.	**04**
	(c)	Explain Bully algorithm with example.	**07**
Q.5	**(a)**	Explain asynchronous point to point message passing with example	**03**
	(b)	Explain NORMA and NUMA systems.	**04**
	(c)	What is Fault Tolerance? How can we achieve fault tolerant system?	**07**
		OR	
Q.5	**(a)**	Explain worm and logic bomb with their consequences.	**03**
	(b)	Explain types of file sharing primitives.	**04**
	(c)	What is RMI? Explain components of RMI in JAVA	**07**

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