Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject code: 710103N Date: 17-06-2014

Subject Name: Distributed Operating System

Time: 02:30 pm - 05:00 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)**	Compare and discuss workstation model and workstation ï server model.	**07**
	(b)	Define: false sharing, thrashing, absolute ordering, orphan call, atomic transaction, location transparency.	**07**
Q.2	**(a)**	Compare remote procedure call and ordinary procedure call. Explain and discuss RPC model.	**07**
	(b)	Explain in detail Versatile Message Transport Protocol.	**07**
		OR	
	(b)	Explain in detail ATM protocol reference model.	**07**
Q.3	**(a)**	Explain in detail OSI reference model.	**07**
	(b)	Explain and discuss taxonomy of load balancing algorithms.	**07**
		OR	
Q.3	**(a)**	Discuss the relative advantages and disadvantages of sequential and release consistency models.	**07**
	(b)	Explain in detail any one of the centralized clock synchronization algorithm.	**07**
Q.4	**(a)**	Compare and discuss stateful and stateless servers.	**07**
	(b)	Explain in detail how deadlocks are handled in distributed system.	**07**
		OR	
Q.4	**(a)**	Explain desirable features of good migration mechanisms.	**07**
	(b)	Explain different buffering techniques in IPC.	**07**
Q.5	**(a)**	Explain desirable features of good distributed file system.	**07**
	(b)	Explain process migration in heterogeneous systems.	**07**
		OR	
Q.5	**(a)**	Compare, 1) Micro kernel and monolithic kernel model. 2) Tightly coupled and loosely coupled system.	**07**
	(b)	Compare and discuss election algorithms.	**07**

****