Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – WINTER 2012

Subject code: 1720201 **Date: 29-12-2012**

Subject Name: Distributed Operating System

Time: 10.30 am – 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)**	Explain loosely coupled and tightly coupled system in terms of both memory and processor. (with diagram)	**07**
	(b)	Why do most RPC systems support call-by-value semantics for parameter passing? Justify your answer.	**07**
Q.2	**(a)**	Which are the different techniques to avoid Dead Lock in DOS?	**07**
	(b)	Explain Election Algorithms for Synchronization in Distributed System.	**07**
		OR	
	(b)	Explain Logical Clocks and Physical Clocks.	**07**
Q.3	**(a)**	Explain applications related to Light weighted RPC.	**07**
	(b)	Explain The Workstation Model.	**07**
		OR	
Q.3	**(a)**	Explain Light weight RPC? Is it possible to implement light weight RPC in railway reservation system? Justify your answer.	**07**
	(b)	Explain The Processor Pool Model.	**07**
Q.4	**(a)**	Explain Naming Transparency in Distributed File System.	**07**
	(b)	Explain The Amoeba System Architecture.	**07**
		OR	
Q.4	**(a)**	Explain Caching in Distributed File System.	**07**
	(b)	Explain The Mach Microkernel.	**07**
Q.5	**(a)**	Explain Granularity in Distributed Shared Memory.	**07**
	(b)	Explain OSI Model in brief.	**07**
		OR	
Q.5	**(a)**	Explaining Thrashing in Distributed Shared Memory.	**07**
	(b)	Explain SUN RPC.	**07**

****