Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI (NEW) - EXAMINATION – SUMMER 2016

Subject Code:2160710 **Date:17/05/2016**

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)**	What are the goal of the building a distributed system? Describe performance of a distributed system.	**07**
	(b)	What are the difference between remote procedure call and local procedure call? Explain lightweight RPC in detail.	**07**
Q.2	**(a)**	What is a " Deadlock"? What are the Four necessary conditions for deadlock to occur? Give suitable example to provide that if any one of the four conditions is absent no deadlock is possible.	**07**
	(b)	List out issues in designing a distributed operating system and explain transparency in detail.	**07**
		OR	
	(b)	Explain the Bully algorithm with example.	**07**
Q.3	**(a)**	What are the various issues in designing load balancing algorithm? Explain any two issues in detail.	**07**
	(b)	Explain data locating techniques in RMBs Strategy with block table in sequential consistency model.	**07**
		OR	
Q.3	**(a)**	What is the difference between replication and file caching? What are the potential benefits of file replication?	**07**
	(b)	What is the process migration? Explain process migration in heterogeneous system.	**07**
Q.4	**(a)**	Briefly discuss the important issues involved in design and implementation of distributed shared memory.	**07**
	(b)	What is the objective of attacking an encryption system? Write the two approaches to attack a conventional encryption scheme.	**07**
		OR	
Q.4	**(a)**	Explain various types of file sharing semantics.	**07**
	(b)	Draw and explain architecture of SUN Network File System.	**07**
Q.5	**(a)**	What are the issues related in designing human oriented names explain in brief.	**07**
	(b)	Explain the following two consistency model. 1) Sequential consistency model 2) Week consistency model	**07**
		OR	
Q.5	**(a)**	Draw and explain architecture of Web Based System.	**07**
	(b)	Explain Feistel Cipher techniques in detail.	**07**

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