GUJARAT TECHNOLOGICAL UNIVERSITY MCA - SEMESTER-II • EXAMINATION – SUMMER 2013

Subject Code: 620006 Date: 07-06-2			013	
Time	ubject Name: Database Management System - II 'ime: 10.30 am - 01.00 pm Total Marks astructions:			
	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	Explain the following 1) Cascading rollback 2) Locking modes 3) Transaction failure 4) Authentication & Authorization 5) Object Identity 6) Firewall 7) Checkpoint	14	
Q.2	(a)	1. RAID stands for 2. Execution plan is a series of 3 system is used to control the access to a statistical database. 4. Single inheritance exists when a class has immediate super class above it. 5. Synchronization is the coordination of 6. The middleware database architecture is also called 7. The operation must be idempotent.	07	
	(b)	Explain any two native relational operators. OR	07	
	(b)	Discuss Typical steps of high-level query processing.	07	
Q.3	(a)	What is Relational Algebra? Explain Super key, Candidate key and	07	
	(b)	Primary key with proper example. What is object oriented database management system? Explain advantages and disadvantages of it. OR	07	
Q.3	(a)		07	
	(b)		07	
Q.4	(a)		07	
	(b)	Database Modification recovery techniques. What is distributed database? Give desired functions of Distributed database and explain types of distributed database.	07	

Q.4 Q.4	` /	Describe types of database failure and explain Buffer Management. Explain various architecture of Parallel database.	07 07
Q.5	(a)	What is Serializability? Explain conflict serializability in detail.	07
	(b)	Explain two phase locking protocol.	07
		OR	
Q.5	(a)	What is Deadlock? Define principal methods for dealing with deadlock problems and explain deadlock prevention.	07
	(b)	Describe ACID properties in brief and explain shadow copy technique.	07
