Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.B.A.- SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 2830401 **Date: 11-01-2013**

Subject Name: Database Management (DM)

Time: 10:30 pm – 01:30 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 is difference between conventional file System & Database management system. Explain what are the benefits of the database approach over conventional file system.	**07**
	(b)	What do you understand by relationship? What is the degree of a relationship? Explain in brief the three types of relationship degrees and give an example of each.	**07**
Q.2	**(a)**	Consider the following tables: Employee (Emp_no, Name, Emp_city) Company (Emp_no, Company_name, Salary) i. Write a SQL query to display Employee name and company name. ii. Write a SQL query to display employee name, employee city ,company name and salary of all the employees whose salary >10000 iii. Write a query to display all the employees working in 'XYZ' company.	**07**
	(b)	Explain triggers and routines? What are the different types of trigger? Discuss in brief the advantages of routines.	**07**
		OR	
	(b)	Explain the following terns: i. Supertype ii. Composite key iii. Normalization	**07**
Q.3	**(a)**	Differentiate between the following: 1. Dynamic view & materialized view 2. Primary Key & Candidate Key.	**07**
	(b)	Explain in brief the major components in a database system environment.	**07**
		OR	
Q.3	**(a)**	What is the difference between COUNT, COUNT DISTINCT, and COUNT(*) in SQL? When will these three commands generate the same and different results?	**03**
	(b)	Describe the advantages and disadvantage of database server.	**07**
Q.4	**(a)**	What is three-tier architecture? What are the different benefits of three-tier architecture? Explain in brief the challenges associated with three-tier architecture.	**07**
	(b)	Explain how each of the following types of integrity constraints are enforced in the SQL CREATE TABLE commands: i. Entity integrity ii. Referential integrity	**07**
		OR	
Q.4	**(a)**	Write short notes on: i. Network model ii. Hierarchical model	**07**
Q.4	**(b)**	What is join? Explain in brief the various types of joins.	**07**
Q.5	**(a)**	Explain the advantages and disadvantages of QBE compared to SQL	**07**
	(b)	Explain in brief the various techniques used to tune the operational performance of relational database internal data model.	**07**
		OR	
Q.5	**(a)**	What is entity-relationship model (E-R model). What are different E-R model notations? Explain in brief the basic constructs of E-R model.	**07**
	(b)	Describe six categories of middleware	**07**

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