Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME- SEMESTER II– EXAMINATION – SUMMER 2015

Subject Code: 2720316 **Date: 01/06/2015**

Subject Name: DATABASE MANAGEMENT SYSTEM

Time: 2:30 PM – 5:00 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)**	Describe advantages of database management system over file system.	**07**
	(b)	Explain BCNF with example.	**07**
Q.2	**(a)**	Explain various built-in string functions along with example.	**07**
	(b)	Explain 3 levels of data abstraction.	**07**
		OR	
	(b)	Explain different types of data models.	**07**
Q.3		Explain generalization and specialization in E-R diagram with suitable example. Also discuss constraints on generalizations.	**14**
		OR	
Q.3		Design database for banking enterprise. Explain data requirements, entity sets, relationship sets for the same. Construct E-R diagram of bank which provides different kinds of bank accounts and loans, and operates number of branches.	**14**
Q.4		We have following relations: EMP(empno, ename, jobtitle, managerno, hiredate, sal, comm, deptno) DEPT(deptno, dname, loc) Answer the following queries in SQL. i) Find the Employees working in the department 10, 20, 30 only. ii) Find Employees whose names start with letter A or letter a. iii) Find Employees along with their department name. iv) Find Employees whose manager is KING. v) Find the Employees who are working in Smith's department vi) Find the Employees who get salary more than Allenôs salary. vii)Display employees who are getting maximum salary in each department	**14**
		OR	
Q.4		Write queries for the following tables. T1 (Empno, Ename , Salary, Designation), T2 (Empno, Deptno.) (1) Display all rows for salary greater than 5000. (2) Display the deptno for the ename=ôsyhamô. (3) Add a new column deptname in table T2. (4) Change the designation of ename=ôramô from ôclerkô to ôsenior clerkô. (5) find the total salary of all the rows. (6) Display Empno, Ename, Deptno and Deptname. (7) Drop the table T1.	**14**
Q.5		What is join? Explain various types of joins with example.	**14**
		OR	
Q.5		What is constraint in database? Explain types of constraints with suitable example.	**14**

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