C.U.SHAH UNIVERSITY
Summer Examination-2016

Subject Name: Advances Database Management System
Subject Code: 4TE06ADM1   **Branch: B.Tech (IT)**
Semester: 6   **Date: 13/05/2016**   **Time: 02:30 To 05:30**   **Marks: 70**
Instructions:
   (1) Use of Programmable calculator & any other electronic instrument is prohibited.
   (2) Instructions written on main answer book are strictly to be obeyed.
   (3) Draw neat diagrams and figures (if necessary) at right places.
   (4) Assume suitable data if needed.

Q-1   **Attempt the following questions:**   **(14)**
   a)   In a relational schema, each tuple is divided into fields called   (1)
            A) Relations   B) Domains
            C) Queries   D) All of the above
   b)   A top-to-bottom relationship among the items in a database is established by a   (1)
            A) Hierarchical schema   B) Network schema
            C) Relational Schema   D) All of the above
   c)   In an ER model, what is described in the database by storing its data?   (1)
            A) Entity   B) Attribute
            C) Relationship   D) Notation
   d)   What does define the structure of a relation which consists of a fixed set of   (1)
            attribute-domain pairs
            A) Instance   B) Schema
            C) Program   D) Super Key
   e)   Which clause is an additional filter that is applied to the result   (1)
            A) Select   B) Group-by
            C) Having   D) Order by
   f)   Which table stores information about database or about the system   (1)
            A) SQL   B) Nested
            C) System   D) None of these
   g)   Grant and revoke are statements of …   (1)
            A) DDL   B) TCL
            C) DCL   D) DML
            Explain following functions with syntax.
   h)   greatest()   (1)
   i)   rtrim()   (1)
   j)   initcap()   (1)
   k)   floor()   (1)
   l)   least()   (1)

m)	rpad()	(1)
n)	last_day()	(1)

Attempt any four questions from Q-2 to Q-8

Q-2		**Attempt all questions**	**(14)**
	a)	Compare SQL with PL/SQL.	**(7)**
	b)	Explain DDL commands with syntax & examples.	**(7)**
Q-3		**Attempt all questions**	**(14)**
	a)	What is Data? What is Database? Explain Functions & applications of DBMS	**(7)**
	b)	Compare DBMS with RDBMS.	**(7)**
Q-4		**Attempt all questions**	**(14)**
	a)	Create PL/SQL block to perform addition of two values using function.	**(7)**
	b)	Explain Domain Constraints with Syntax and Example.	**(4)**
	c)	Explain Integrity Constraints with Syntax and Example.	**(3)**
Q-5		**Attempt all questions**	**(14)**
	a)	What is trigger? Explain Row-level Trigger and statement-level Trigger.	**(7)**
	b)	What is cursor? Explain Cursor with example.	**(7)**
Q-6		**Attempt all questions**	**(14)**
	a)	Explain client/server model.	**(7)**
	b)	Explain Web database.	**(4)**
	c)	Explain mobile database	**(3)**
Q-7		**Attempt all questions**	**(14)**
	a)	Explain Database Design Issue.	**(7)**
	b)	Explain PL/SQL Block structure with example.	**(7)**
Q-8		**Attempt all questions**	**(14)**
	a)	Explain Types of Procedure in PL/SQL.	**(7)**
	b)	Consider following schema and write SQL statements for the same.	**(7)**

Employee(Emp_ID, Emp_Name, Emp_Age, Emp_Salary, Dept_ID, City*)*
(Here, Dept_ID is the foreign key of reference table Department)
Department (Dept_ID, Dept_Name, Category)   (Categories: Technical and Non-Technical)

    i) Create table Employee with constraint.
    ii) Create table Department with constraint.
    iii) Select Employee names who belongs to department of category "Technical" with salary > 25,000
    iv) Get the total salary given to the employees who are in "non technical" department.
    v) Get the total number of employees working in technical department.
    vi) Get the total number of employees working in "non technical" department
    vii) Get the minimum salary given to a "non technical" worker.