XW-117

April-2013

Five Years M.Sc. (CA & IT) Integrated (K.S.)
F.Y. M.Sc. (Sem. II)

DATABASE MANAGEMENT SYSTEM Using SQL & PL/SQL

Time : 3 Hours] **[Max. Marks : 100**

1. Answer the following : **20**
   (1) What is SQL ? What are the components of SQL ?

   (2) What are constraints ? Differentiate between :
       – Primary & Unique key
       – Truncate & Drop Table

   (3) Create a table Student_Details (Roll_No, Name, Birthdate, Address) with appropriate data types & having following constrains :
       – Set Roll_No as primary key
       – Name should not be NULL
       – Birthdate must be greater than '01-JUN-85'

   (4) Considering the 'Student_Details' table, write the commands for following :
       (a) Add a new column Ph_Number.
       (b) Select Roll_No & name of students whose name start with 'm'.
       (c) Drop the Column Address.
       (d) Remove all the rows from the table.
       (e) Display the structure of the table.

2. Answer any **four** : **20**

   (1) Explain the classification of oracle functions ? Also explain with syntax & example any three Date functions.

   (2) Explain view briefly. What will be the behaviour of a view if it is created from multiple tables ? Write the syntax of creating & dropping view.

   (3) Consider the following Tables :
       Emp : EmpId, Ename, Salary, deptno
       Dept : Deptno, dname, Loc_Id
       Location : Loc_Id, Loc_Name
       Write the queries for following :

       (a) Display empId, ename, deptno, dname & loc_name of all the employees.

       (b) Display deptno which do not have any employees.

(4)   What is a correlated subquery ? Write a query to find deptno where average salary is more than the average salary of employees working in deptno 30. Consider the 'emp' table.

(5)   What do you mean by Granting & revoking Privileges ? Write commands for :

(i)   Granting All privileges on dept table to user 'Smith'.

(ii)   Revoking delete privilege on emp Table from user 'Neil'.

(iii) Granting select privilege on emp table to user 'scott', with an option to further grant permission to other users.

3.   Answer any **four** :   20

(1)   Differentiate between SQL & PL/SQL. Draw the diagram of PL/SQL execution environment.

(2)   Explain the generic PL/SQL Block.

(3)   Write a PL/SQL Block to Print eName & salary of first five employees earning highest salary. Consider the 'emp' Table.

(4)   Consider the 'student_details' table & write a PL/SQL Block to accept name of the student from the user & check if birthdate is greater than '1-JAN-90'.

(5)   Consider the 'emp' Table & write a PL/SQL Block to Print Maximum & Minimum salary of the deptno given by the user.

4.   Answer any **four** :   20

(1)   What is the difference between procedure & function ? What are the advantages of using procedure & functions.

(2)   Briefly explain what is a package & its components. What are the advantages of using a package ?

(3)   What is a Cursor ? Explain types of Cursors.

(4)   Create a function to accept Branch_No & return number of customers of that Branch.

Table : Customer

Fields : Cust_No, Cust_Name, Branch_No, Balance

(5)   Write a PL/SQL block to Print name of the employees earning more than the given salary amount use parameterized cursor.

5.   Answer any **four** :   20

(1)   What is a trigger ? Explain types of Triggers.

(2)   How are exceptions handled in PL/SQL ? List the predefined oracle named exceptions.

(3) Explain the physical structure of database. Also list the oracle background processes.

(4) Create a trigger which allows insertion but restricts updation & deletion in the 'Student – Details' Table. When a row is inserted, print the roll_No of the student.

(5) Create a package consisting of 1 procedure & 1 function ;
   – The procedure accepts Roll_No from the user & deletes the record of the Student from the 'Student – Details' Table. The fields in table are Student_Details (Roll_No, Name, Birthdate, Address)

   – The function accepts Roll_No from the user & returns Birthdate of the student.

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