22416

Instructions –   (1) All Questions are *Compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   **Attempt any FIVE of the following:**   **10**

a) Define terms:

(i)   Attribute

(ii)   Domain

b) State the use of 'Like' operator.

c) Write syntax to create 'view'.

d) List the types of curson.

e) Enlist types of database user.

f) State properties of transaction.

g) State the use of sequence.

Marks

2. **Attempt any <u>THREE</u> of the following:** **12**

a) Describe use of primary key and unique key constraint with example.

b) Write any two types of joins with example of each.

c) Create sequence seq-1 with starting value 1 and maximum value 20 with an increment of 1. Consider schema customer {custno, custname, telephone} and use seq-1 sequence for inserting a row in customer table.

d) Consider following schema product {prodid, prodname, rate, qty, manufacturer, qty-in-stock} Write SQL queries for following:

   (i) Find total number of products manufactured by company "ABC".

   (ii) Display list of products with highest rated product coming at the top.

3. **Attempt any <u>THREE</u> of the following:** **12**

a) Write a PL/SQL code to find sum of numbers from 1 to 20.

b) Describe system and object privileges and also describe use of Grant and Revoke commands with suitable example.

c) Describe concept of subqueries with example.

d) Write syntax and example of create and drop synonym.

Marks

4. **Attempt any <u>THREE</u> of the following:** **12**

a) Write steps to create, execute and delete a stored procedure.

b) Describe simple and composite index.

c) Consider following schemas:
Student {rollno, name dt_of_birth, telephone} marks {rollno, sub1_marks, sub 2_marks, per} Write SQL queries for following:

    (i) Display student's rollno, name and marks of both subjects for all students.

    (ii) Delete all those students records who secured less than 35%.

    (iii) Display all students whose name starts with 'A'

    (iv) Update telephone number of student with rollno 101 as 9800010111.

d) Describe types and causes of failures in database environment.

e) Write a PL/SQL code to raise zero_divide exception, in case of division of a number by another.

5. **Attempt any <u>TWO</u> of the following:** **12**

a) Write SQL statements for following:

    (i) Create table student with rollno, name, d-o-b, percentage, assign rollno as primary key.

    (ii) Add new column email in student table.

    (iii) Delete table 'student' with its structure and data.

b) Consider following schema:

employee {empid, empname, designation, salary, deptno.}

dept {deptno, deptname, location}

Write SQL queries for following:

    (i) Find maximum salary for deptno 10.

    (ii) Increase salary of all employees by 5%

    (iii) Get the names of all "Manager".

    (iv) Display deptnames located at 'Pune' and 'Nagpur'.

c) Write a PL/SQL code to create a function name square_no to calculate square of number and also have another PL/SQL code to call this function.

Marks

6. **Attempt any TWO of the following:** **12**

a) Consider schema 'employee' created by user1.

Write SQL queries for following:

(i) Grant 'select' and 'insert' permissions to user2.

(ii) Assign all privileges for the user user3.

(iii) Remove 'select' permission from user2 for table 'employee'.

(iv) Grant 'update' permission to user2 and user3

(v) Remove all permission from user3.

(vi) Assign 'resource' permission to user2.

b) Create a trigger which invokes on updation of record on emp table.

c) Consider following schema:

Person {personid, name, address, city, telephone}

Write PL/SQL queries for following:

(i) Create sequence seq-pid with start value 100 and maximum value 120 and increment by 1.

Use seq_pid to insert personid into table person.

(ii) Create view view-person containing details of persons from city "Mumbai" and "Pune".

(iii) Create synonym syn-person on table person owned by user 'scott' delete synonum syn-person.

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