|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Create following tables:  Table name : client\_master   |  |  |  | | --- | --- | --- | | Column Name | Data type | Size | | Client\_no | varchar | 6 | | Name | varchar | 20 | | Address | varchar | 30 | | City | varchar | 15 | | Pincode | numeric | 8 | | State | varchar | 15 | | Bal\_due | numeric | 10,2 | |
| Table name: Product\_master   |  |  |  | | --- | --- | --- | | Column Name | Data type | Size | | product\_no | varchar | 6 | | description | varchar | 15 | | Profit\_percent | numeric | 4,2 | | Unit\_measure | varchar | 10 | | Qty\_on\_hand | numeric | 8 | | Reorder\_level | numeric | 8 | | Sell\_price | numeric | 8,2 | | Cost\_price | numeric | 8,2 |   2. Insert 5-6 records in each table. 4 MARKS  3. Find out the names of all clients  4. Retrieve the entire contents of the client\_master table.  5. Retrieve the list of names and cities of all the clients  6. List the various products available from the product\_master table  7. List all the clients who are located in mumbai.  8. Change the city of client\_no C001 to mumbai  9. Change the bal\_due of client\_no C005 to Rs. 1000  10. Change the cost price of 'hard disk' to Rs. 3000  11. Delete all the products from product\_master where the qty\_on\_hand is less than 100  12. Delete from client\_master where the column state holds the  value 'Tamil Nadu' |

B) Create following table:

Table name : sales\_order

|  |  |  |
| --- | --- | --- |
| Column Name | Data type | Size |
| order\_no | varchar | 6 |
| Order\_date | date |  |
| Client\_no | varchar | 6 |
| Dely\_addr | varchar | 25 |
| Salesman\_no | varchar | 6 |
| Dely\_type | char | 1 |
| Billed\_yn | char | 1 |
| Dely\_date | Date |  |
| Order\_status | varchar | 10 |

2. Insert 5-6 records in table.

3. Find the names of all clients having ‘a’ as the second letter in their names.

4. Find out the clients who stay in a city whose second letter is ‘a’

5. Find the list of all clients who stay in ‘mumbai’ ordered by their names

6. Print the list of clients whose bal\_due is greater than value 10000

7. Print the information from sales\_order table for orders placed in the month of January

8. Display the order information for client\_no C001 and C002

9. Find the products whose selling price is greater than 2000 and less than or equal to 5000

10. Find the products whose selling price is more than 1500. Calculate new selling price as original selling price \* 1.5. Rename the new column in the above query as new\_price

11. count the total number of orders

12. Calculate the average price of all the product

13. Determine minimum and maximum product prices

14. count the number of products having price greater than or equal to 1500

15. Display the order number and day on which clients placed their order

C) Create following table:

Table name : sales\_order

|  |  |  |
| --- | --- | --- |
| Column Name | Data type | Size |
| order\_no | varchar | 6 |
| Order\_date | date |  |
| Client\_no | varchar | 6 |
| Dely\_addr | varchar | 25 |
| Salesman\_no | varchar | 6 |
| Dely\_type | char | 1 |
| Billed\_yn | char | 1 |
| Dely\_date | Date |  |
| Order\_status | varchar | 10 |

2. Insert 5-6 records in table.

3. Find the names of all clients having ‘a’ as the second letter in their names.

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5. Find the list of all clients who stay in ‘mumbai’ ordered by their names

6. Print the list of clients whose bal\_due is greater than value 10000

7. Print the information from sales\_order table for orders placed in the month of January

8. Display the order information for client\_no C001 and C002

9. Find the products whose selling price is greater than 2000 and less than or equal to 5000

10. Find the products whose selling price is more than 1500. Calculate new selling price as original selling price \* 1.5. Rename the new column in the above query as new\_price

11. Display the order\_date in the format ‘dd-month-yy’

12. Display the month (in alphabets) and date when the order must be delivered

13. Find the date, 15 days after today’s date

14. Find the no. of days elapsed between today’s date and the delivery date of orders placed by the clients.

15 Determine minimum and maximum product prices

**D)**

1. Write a query to create a table employee with empno, ename, designation, and salary. Emp (empno number (4), ename varchar2 (10), designatin varchar2 (10), salary number (8,2));
2. Write a Query to Alter the column empno number (4) to empno number (6).
3. Write a Query to Alter the table employee with multiple columns (empno, ename.)
4. Write a query to add a new column in to employee as qualification varchar2(6)
5. Write a query to add multiple columns in to employee dob date , doj date
6. Write a query to drop a column ‘doj’ from an existing table employee
7. Write a query to drop multiple columns ‘dob’ and ‘qualification’ from employee
8. Truncate table EMP
9. Drop table EMP

**E) 1. Create following table**

company1( id int, name text not null, age int not null, address varchar(50), salary real );

2. Insert rows with name or age as NULL values

3. Create following table

company3( id not null, name text not null, age int unique address varchar(50), salary real );

4. Insert 2 rows with same age values in two rows

5. Create following table

company4( id int primary key, name text, age int, address varchar(50), salary real);

6. Insert 2 rows with same id values in two rows

7. Create following tables

employee( id int primary key, name text, age int, address varchar(50), salary real);

department(id int primary key, name varchar(50) not null, emp\_id int references employee(id));

8. Insert 2 rows in employee table with id 1 and 2

9. Insert row in department table with different empid

10. Create following table

company5( id int, name text, age int, address varchar(50), salary real check(salary > 0));

11. Insert row in with salary value less than 0

**F)1. Create following table:**

Table name : sales\_order\_details

|  |  |  |
| --- | --- | --- |
| Column Name | Data type | Size |
| order\_no | varchar | 6 |
| Product\_no | varchar | 6 |
| Qty\_ordered | numeric | 8 |
| Qty\_disp | numeric | 8 |
| Product\_rate | numeric | 10,2 |

Create table- customer(cid, cname, address, pno)

Create table- cust\_order(cid foreign key, order\_no foreign key)

2. Insert 5-6 records in table in each tables.

3. Print the description and total qty sold for each product

4. Find the value of each product sold

5. Calculate the average quantity sold for each client that has a maximum order value of 15000

6. find out the sum total of all the billed orders for the month of January

7. find out the name of customers who have given the order of more than 10 qty.

8. find out the customer names with product no with maximum qty ordered.

**G)Perform the following queries using nested sub-queries**

1. Create table according to following queries
2. Find the product no. and description of non-moving products i.e. products not being sold.
3. Find the customer name, address for the client who has placed order no ‘O191’
4. Find the clients names who have placed orders before the month of May’96
5. Find out if the product ‘1.44 Drive’ has been ordered by any client and print the client\_no, name to whom it was sold
6. Find the names of clients who have placed orders worth Rs. 10000 or more
7. Retrieve all the orders placed by a client named ‘Rahul Desai’ from the sales\_order table.
8. Find out all the products that are not being sold from the product\_master table, based on the products actually sold as shown in the sales\_order\_details table.
9. Retrieve the product numbers, their description and the total quantity ordered for each product.

H) PL/SQL

1. Write a block to display sum of digits of a three digit number
2. Write a block to display square of 1 to 10

I) PL/SQL

1. Write a block to display square of 1 to 10
2. Write a block to display Fibonacci series upto 8th term (start with 0,1)

J) Function

1. Write a function to find factorial of a number
2. Create table emp(id,name,salary) and insert 3 records in it.
3. Write a function find average salary from emp table

K)

1. Create table emp (id,name,salary) and insert 3 records in it.
2. Write a row level trigger that would fire before insert/ update/delete operations performed on emp table, not allowing these operations and display the appropriate message.
3. Write a row level trigger that would fire after insert/update/delete operations performed on emp table displaying date on which data manipulation performed.

I)

|  |
| --- |
| A university registrar’s office maintains data about the following entities:  (a)courses, including number, title, credits, syllabus, and prerequisites;  (b) course offerings, including course number, year, semester, section number, instructor(s), timings, and classroom;  (c) students, including student-id, name, and program; and  (d) instructors, including identification number, name, department, and title.  Further, the enrollment of students in courses and grades awarded to students in each course they are enrolled for must be appropriately modeled. |
| 1) Consider above data and Construct an E-R diagram for the registrar’s office. Document all assumptions that you make about the mapping constraints. |
| 2) Convert conceptual model into relational model  3) Create the tables for this problem using all constraints ( NULL, Not Null, PKEY, FKEY, Check(), default) |

L)

Consider a university database for the scheduling of classrooms for final exams. This database could be modeled as the single entity set *exam*, with attributes

*course-name*, *section-number*, *room-number*, and *time*.

Alternatively, one or more additional entity sets could be defined, along with relationship sets to replace some of the attributes of the *exam* entity set, as

*• course* with attributes *name*, *department*, and *c-number*

*• section* with attributes *s-number* and *enrollment*, and dependent as a weak

entity set on *course*

*• room* with attributes *r-number*, *capacity*, and *building*

**1)** Show an E-R diagram illustrating the use of all three additional entity sets listed.

2) Convert conceptual model into relational model

3) Create the tables for this problem using all constraints ( NULL, Not Null, PKEY, FKEY, Check(), default)

M) Design an E-R diagram for keeping track of the exploits of your favourite sports team. You should store the matches played, the scores in each match, the players in each match and individual player statistics for each match. Summary statistics should be modeled as derived attributes.

**1)** Show an E-R diagram illustrating the use of all three additional entity sets listed.

2) Convert conceptual model into relational model

3) Create the tables for this problem using all constraints ( NULL, Not Null, PKEY, FKEY, Check(), default)