**Data science Exam Paper**

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Q-Write a SQL query which will sort out the customer and their grade who made an order. Every customer must have a grade and be served by at least one seller, who belongs to a region.

**Ans 1:-**

**use exam;**

**select \* from orders;**

**select \* from Customer;**

**select \* from salesman;**

**SELECT customer.cust\_name AS "Customer",**

**customer.grade AS "Grade"**

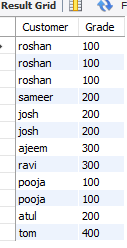
**FROM orders, salesman, customer**

**WHERE orders.customer\_id = customer.custemor\_id**

**AND orders.salesman\_id = salesman.salesman\_id**

**AND salesman.city IS NOT NULL**

**AND customer.grade IS NOT NULL;**

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Q2. Write a query for extracting the data from the order table for the salesman who earned the maximum commission.

**Ans 2:-**

**SELECT ord\_no, purch\_amt, ord\_date, salesman\_id**

**FROM orders**

**WHERE salesman\_id IN(**

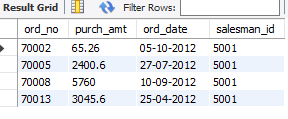
**SELECT salesman\_id**

**FROM salesman**

**WHERE commision = (**

**SELECT MAX(commision)**

**FROM salesman));**

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Q-From orders retrieve only ord\_no, purch\_amt, ord\_date, ord\_date, salesman\_id where salesman’s city is Nagpur(Note salesman\_id of orderstable must be other than the list within the IN operator.)

**Ans 3:-**

**SELECT \***

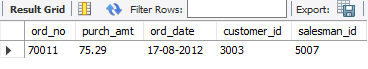
**FROM orders**

**WHERE salesman\_id =**

**(SELECT salesman\_id**

**FROM salesman**

**WHERE city='nagpur');**

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Q-Write a query to create a report with the order date in such a way that the latest order date will come last along with the total purchase amount and the total commission for that date is (15 % for all sellers).

**Ans 4:-**

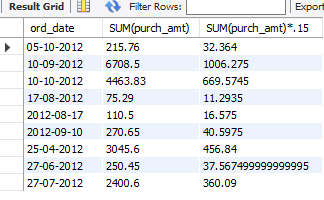
**SELECT ord\_date, SUM(purch\_amt),**

**SUM(purch\_amt)\*.15**

**FROM orders**

**GROUP BY ord\_date**

**ORDER BY ord\_date;**

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Q-Retrieve ord\_no, purch\_amt, ord\_date, ord\_date, salesman\_id from Orders table and display only those sellers whose purch\_amt is greater than average purch\_amt

**Ans 5:-**

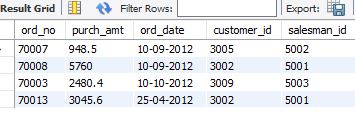
**SELECT \***

**FROM orders a**

**WHERE purch\_amt >**

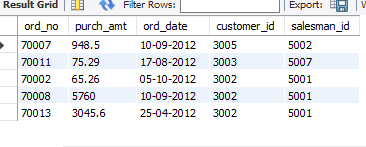
**(SELECT AVG(purch\_amt) FROM orders b**

**WHERE b.customer\_id = a.customer\_id);**

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6. Write a query to determine the Nth (Say N=5) highest purch\_amt from Orders table. 7. What are Entities and Relationship

**Ans 6:-  
select \* from orders order by purch\_amt desc limit 5;**

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Q-What are Entities and Relationships?

**Ans 7:-**

**Entity:-**An entity set is a collection of similar types of entities. An entity set may contain entities with attribute sharing similar values. For example, a Students set may contain all the students of a school; likewise a Teachers set may contain all the teachers of a school from all faculties.

**Relationship:-**The association among entities is called a relationship. For example, an employee **works\_at** a department, a student **enrolls** in a course. Here, Works\_at and Enrolls are called relationships.

8. Print customer\_id, account\_number and balance\_amount, condition that if balance\_amount is nil then assign transaction\_amount for account\_type = "Credit Card"

**Ans 8:-**

Select customer\_id , a.account\_number,

Case when ifnull(balance\_amount,0) = 0 then

Transaction\_amount else balance\_amount end  as balance\_amount

from Bank\_Account\_Details a

inner join

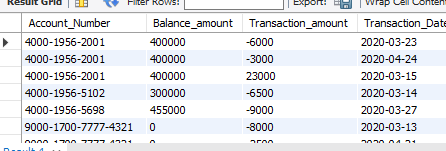
bank\_account\_transaction b

on a.account\_number = b.account\_number

and account\_type = "Credit Card";

9. Print customer\_id, account\_number, balance\_amount, conPrint account\_number, balance\_amount, transaction\_amount from Bank\_Account\_Details and bank\_account\_transaction for

**ANS 9:-**



select a.account\_number, balance\_amount, transaction\_amount, transaction\_date

from bank\_account\_details a inner join

bank\_account\_transaction b on

a.Account\_Number = b.Account\_Number

and (Transaction\_Date between "2020-03-01" and "2020-04-30")

10. Print all of the customer id, account number, balance\_amount, transaction\_amount from bank\_cutomer, bank\_account\_details and bank\_account\_transactions tables where excluding all of their transactions in march, 2020 month

**ANS 10:-**

select a.Customer\_id,a.account\_number, balance\_amount, transaction\_date

from bank\_account\_details a left join

bank\_account\_transaction b on

a.Account\_Number = b.Account\_Number

and not (date\_format(transaction\_date, '%Y-%m')="2020-03") and Transaction\_Date is not null