SET 2

1. select all employees in department 10 whose salary is greater than 3000. [table: employee]

ANS : select department10 from employee

Where salary > 3000;

2. The grading of students based on the marks they have obtained is done as follows:

40 to 50 -> Second Class

50 to 60 -> First Class

60 to 80 -> First Class

80 to 100 -> Distinctions

1. How many students have graduated with first class?

b. How many students have obtained distinction? [table: students]

ANS : SELECT CASE WHEN marks BETWEEN 81 AND 100 then 'Distinction'

WHEN marks BETWEEN 51 AND 80 then 'First Class'

WHEN marks BETWEEN 40 AND 50 then 'Second class'

ELSE 'No Grade Available'

END Grade,

COUNT(\*) AS stud\_count

FROM students

WHERE marks > 50

GROUP BY CASE WHEN marks BETWEEN 81 AND 100 then 'Distinction'

WHEN marks BETWEEN 51 AND 80 then 'First Class'

WHEN marks BETWEEN 40 AND 50 then 'Second class'

ELSE 'No Grade Available'

END

1. Get a list of city names from station with even ID numbers only. Exclude duplicates from your answer.[table: station]

ANS: select distinct(city) from station

Where id %2=0;

4. Find the difference between the total number of city entries in the table and the number of distinct city entries in the table. In other words, if N is the number of city entries in station, and N1 is the number of distinct city names in station, write a query to find the value of N-N1 from station.

[table: station]

ANS: select count(city) from station;

select distinct(count(city)) from station;

select (count(city)- count(distinct city)) from station;

5. Answer the following

a. Query the list of CITY names starting with vowels (i.e., a, e, i, o, or u) from STATION. Your result cannot contain duplicates. [Hint: Use RIGHT() / LEFT() methods ]

ANS : SELECT DISTINCT CITY FROM STATION WHERE CITY LIKE 'A%' OR CITY LIKE 'E%' OR CITY LIKE 'I%' OR CITY LIKE 'O%' OR CITY LIKE 'U%';

b. Query the list of CITY names from STATION which have vowels (i.e., a, e, i, o, and u) as both their first and last characters. Your result cannot contain duplicates.

ANS : SELECT DISTINCT CITY FROM STATION WHERE CITY LIKE 'a%a' OR CITY LIKE 'e%e' OR CITY LIKE 'i%i' OR CITY LIKE 'o%o' OR CITY LIKE 'u%u';

c. Query the list of CITY names from STATION that do not start with vowels. Your result cannot contain duplicates.

ANS : SELECT DISTINCT CITY FROM STATION WHERE CITY NOT LIKE 'A%' OR CITY NOT LIKE 'E%' OR CITY NOT LIKE 'I%' OR CITY NOT LIKE 'O%' OR CITY NOT LIKE 'U%';

d. Query the list of CITY names from STATION that either do not start with vowels or do not end with vowels. Your result cannot contain duplicates. [table: station]

ANS : SELECT DISTINCT CITY FROM STATION WHERE CITY NOT LIKE 'a%a' OR CITY NOT LIKE 'e%e' OR CITY NOT LIKE 'i%i' OR CITY NOT LIKE 'o%o' OR CITY NOT LIKE 'u%u';

6. Write a query that prints a list of employee names having a salary greater than $2000 per month who have been employed for less than 36 months. Sort your result by descending order of salary. [table: emp]

ANS : select \* from emp where

salary>2000 and (months\_between(date, hire\_date))<=10

order by emp\_no desc ;

7. How much money does the company spend every month on salaries for each department? [table: employee]

ANS: select deptNo,SUM(salary) FROM employee

Group By deptNo;

Expected Result

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+--------+--------------+

| deptno | total\_salary |

+--------+--------------+

| 10 | 20700.00 |

| 20 | 12300.00 |

| 30 | 1675.00 |

+--------+--------------+

3 rows in set (0.002 sec)

8. How many cities in the CITY table have a Population larger than 100000. [table: city]

ANS : select count(\*)

from (select name, sum(population) as population

from city

group by name

having sum(population) > 410000

) c;

9. What is the total population of California? [table: city]

ANS : select sum(population) from city

Where districts=’California’;

10. What is the average population of the districts in each country? [table: city]

ANS: select districts,distinct(country),avg(population) from city;

11. Find the ordernumber, status, customernumber, customername and comments for all orders that are ‘Disputed= [table: orders, customers]

ANS: Select o.ordernumber,o.status,c.customernumber,c.customername

From orders o

INNER JOIN customer c

ON o.orderNumber=od.orderNumber

Group BY c.customerNumber

HAVING o.status=’Disputed’;