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

**Ans. SELECT \***

**from employee**

**where deptno=10 AND 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

How many students have graduated with first class?

**Ans. 13**

**Query-** **SELECT count(name)**

**from students**

**where marks between 50 and 80;**

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

**Ans.11**

**Query - SELECT count(name)**

**from students**

**where marks between 80 and 100;**

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

**Ans.** **SELECT distinct city, id**

**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.30 Query - select (count(CITY)- count(distinct CITY)) from STATION;**

5. 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'e%'OR'%i'OR'%o'OR'%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'e%e'OR'i%i'OR'o%o'OR'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'e%'OR'i%'OR'o%'OR'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'e%e'OR'i%i'OR'o%o'OR'u%u';**

7. 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 10 months. Sort your result by ascending emp\_no. [table: emp]

**Ans.** **SELECT \***

**from emp**

**where date\_sub(date(now()),INTERVAL 10 MONTH)<hire\_date AND salary>2000;**

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

**Ans. SELECT sum(salary), deptno**

**from employee**

**group by deptno;**

Expected Result:

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

| sum(salary) | deptno |

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

| 30700.00 | 10 |

| 13600.00 | 20 |

| 2600.00 | 30 |

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

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

**Ans.** **SELECT name, population**

**from city**

**where population>100000;**

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

**Ans.** **SELECT district, sum(population)**

**from city**

**where district = 'california';**

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

**Ans. SELECT distinct (countrycode), avg(population)**

**from city**

**group by countrycode;**

Expected Result:

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

| countrycode | avg(population) |

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

| JPN | 175839.2000 |

| NLD | 593321.0000 |

| USA | 120225.8750 |

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