Set A

1. Count the number of employees hired during each quarter of the year. [Hint: You can convert the number 1 into its corresponding month Jan by using the function to_char (to_date (1, 'MM'), 'Mon')]

   select to_char (to_date (floor ((to_number (to_char (hire_date, 'MM'))-1)/3)*3+1, 'MM'), 'Mon') || '-' || to_char (to_date (floor ((to_number (to_char (hire_date, 'MM'))-1)/3)*3+3, 'MM'), 'Mon') as "Quarter", count(*) as "Employees Hired" from employees

   group by floor ((to_number (to_char (hire_date, 'MM'))-1)/3)

   order by floor ((to_number (to_char (hire_date, 'MM'))-1)/3)

2. Display the full name (full name includes first name, a space and last name) of the employees formatted as right justified in the column, in such a way that a total 20 characters are shown including the name. Order the result in ascending order of the length of their full names.

   select lpad (first_name || ' ' || last_name, 20, ' ') as "Full Name" from employees

   order by length (first_name || ' ' || last_name)

3. For each department and each job, show the department id, job id, the first hiring date, the last hiring date and average salary. Show the outputs with an average salary more than 8000. Make sure any sort of null value is not printed and the average salary value is rounded to two decimal digits. Order the result by department id.

   select department_id, job_id, min(hire_date), max(hire_date), avg(salary) from employees

   group by department_id, job_id having avg(salary) > 8000 order by department_id

4. For each manager who manages less than 10 employees, show the manager id, number of employees and the average salary of the employees managed by him/her. Show the outputs with an average salary less than 4000. Print the output in the ascending order of number of employees managed and if there is a tie then print those in descending order of average salary. Make sure any sort of null value is not printed.

   select manager_id, count (*), avg(salary) from employees where manager_id is not null

   group by manager_id having avg(salary) < 4000 and count (*) < 10

   order by count (*), avg(salary) desc

5. Find the full name (full name includes first name, a space and last name) and email of the employees working in the department with department_id 60 who use their first_name as part of their email. Show your result in the lexicographical order of email.

   select first_name || ' ' || last_name as "Full Name", email from employees

   where department_id = 60 and email like '%' || first_name || '%'

   instr (email, first_name) > 0 can be used as well

Set B

1. Count the number of employees hired during each segment of four months of the year. [Hint: You can convert the number 1 into its corresponding month Jan by using the function to_char (to_date (1, 'MM'), 'Mon')]

   select to_char (to_date (floor ((to_number (to_char (hire_date, 'MM'))-1)/4)*4+1, 'MM'), 'Mon') || '-' || to_char (to_date (floor ((to_number (to_char (hire_date, 'MM'))-1)/4)*4+4, 'MM'), 'Mon') as "Month Range", count(*) as "Employees Hired" from employees

   group by floor ((to_number (to_char (hire_date, 'MM'))-1)/4)

   order by floor ((to_number (to_char (hire_date, 'MM'))-1)/4)

2. Display the full name (full name includes first name, a space and last name) of the employees formatted as left justified in the column, in such a way that a total 20 characters are shown including the name. Order the result in ascending order of the length of their full names.

   select rpad (first_name || ' ' || last_name, 20, ' ') as "Full Name" from employees

   order by length (first_name || ' ' || last_name)

3. Display the country id and address for each of the locations. Address should be generated in the format (street_address, city, state_province - postal_code). Your address should be displayed only when all the required fields are available. Order the result in lexicographic order of the country id. In case of any tie, break it by the reverse lexicographic order of the postal code.

   select country_id, street_address ||', ' || city || ', ' || state_province || ' - ' || postal_code from locations where street_address ||', ' || city || ', ' || state_province || ' - ' || postal_code is not null order by country_id, postal_code desc

4. For each employee, display their full name (full name includes first name, a space and last name), current annual salary, current monthly salary, commission percentage, and their next year's increased monthly salary. Consider that employees will get a year-end increment according to the formula (increment = annual salary * commission percentage / 100). Employees who do not have any defined commission percentage will get a 0.05% pay deduction (based on their annual salary) at the end of the year.

   select first_name || ' ' || last_name as "Full Name", salary * 12 as "Annual Salary", salary, commission_pct, salary + salary * 12 * nvl (commission_pct, -0.05) / 100 as "New Monthly Salary" from employees

5. Show the full name (full name includes first name, a space and last name) and hire date of all employees whose first name starts with the letter A and the last name does not contain the letter B/b, and who have joined after 1st November 2004. Show the hire date along with the full name of the employees. Show the results in the lexicographical order of full name.

   select first_name || ' ' || last_name as "Full Name" from employees

   where first_name like 'A%' and upper(last_name) not like '%B%' and hire_date > '01-Nov-2004' order by "Full Name"