1)

```
SQL> select * from departments;

DEPARTMENT_ID
-------------
DEPARTMENT_NAME
------------------------------------------
LOCATION_ID MANAGER_ID
----------- ----------
             10
Sales
```

2)

```
SQL> SELECT UPPER(first_name) AS first_name, UPPER(last_name) AS last_name
  2  FROM employees
  3  WHERE last_name LIKE 'A%';

no rows selected
```

3)

```
SQL> SELECT ROWNUM, last_name, first_name, salary, department_id
  2  FROM (SELECT last_name, first_name, salary, department_id
  3        FROM employees
  4        ORDER BY salary DESC);
```

```
    ROWNUM
----------
LAST_NAME
--------------------------------------------------------------------------------
FIRST_NAME
--------------------------------------------------------------------------------
    SALARY DEPARTMENT_ID
---------- -------------
         1
Johnson
Alice
      6000


    ROWNUM
----------
LAST_NAME
--------------------------------------------------------------------------------
FIRST_NAME
--------------------------------------------------------------------------------
    SALARY DEPARTMENT_ID
---------- -------------
         2
Smith
Bob
      5000
```

4)

```
SQL> SELECT employee_id, last_name, first_name, hire_date,
  2         EXTRACT(YEAR FROM hire_date) AS hire_year,
  3         CASE WHEN EXTRACT(MONTH FROM hire_date) BETWEEN 1 AND 6 THEN 1 ELSE 2 END AS hire_semester,
  4         CASE WHEN EXTRACT(MONTH FROM hire_date) BETWEEN 1 AND 3 THEN 1
  5              WHEN EXTRACT(MONTH FROM hire_date) BETWEEN 4 AND 6 THEN 2
  6              WHEN EXTRACT(MONTH FROM hire_date) BETWEEN 7 AND 9 THEN 3
  7              ELSE 4 END AS hire_quarter
  8  FROM employees
  9  ORDER BY hire_year DESC;
```

```
EMPLOYEE_ID
-----------
LAST_NAME
--------------------------------------------------------------------------------
FIRST_NAME
--------------------------------------------------------------------------------
HIRE_DAT  HIRE_YEAR HIRE_SEMESTER HIRE_QUARTER
-------- ---------- ------------- ------------
         102
Smith
Bob
01/02/21       2021             1            1


EMPLOYEE_ID
-----------
LAST_NAME
--------------------------------------------------------------------------------
FIRST_NAME
--------------------------------------------------------------------------------
HIRE_DAT  HIRE_YEAR HIRE_SEMESTER HIRE_QUARTER
-------- ---------- ------------- ------------
         101
Johnson
Alice
01/01/20       2020             1            1
```

5)

```
SQL> SELECT department_id,
  2         ROUND(SUM(MONTHS_BETWEEN(SYSDATE, hire_date)), 2) AS total_months
  3  FROM employees
  4  GROUP BY department_id;

DEPARTMENT_ID TOTAL_MONTHS
------------- ------------
                    110,2
```

6)

```
SQL> SELECT department_id,
  2         ROUND(SUM(MONTHS_BETWEEN(SYSDATE, hire_date)), 2) AS total_months
  3  FROM employees
  4  GROUP BY department_id;

DEPARTMENT_ID TOTAL_MONTHS
------------- ------------
                    110,2

SQL> SELECT department_id, SUM(salary) AS total_salary
  2  FROM employees
  3  GROUP BY department_id;

DEPARTMENT_ID TOTAL_SALARY
------------- ------------
                    11000
```

7)

```
SQL> SELECT COUNT(*)
  2  FROM employees
  3  WHERE EXTRACT(YEAR FROM hire_date) = 2000;

  COUNT(*)
----------
         0
```

8)

```
SQL> SELECT location_id, COUNT(department_id) AS department_count
  2  FROM departments
  3  GROUP BY location_id
  4  HAVING COUNT(department_id) > 2;

no rows selected
```