

# Online on Advanced SQL

Time: 55 + 5 mins

Section: A1 + A2

Marks: 5 \* 5 = 25

Read all the questions carefully. A row from the desired output has been attached to every question for your better understanding of the display format. **This row may or may not be the top row of your answer.**

1. Find employees who are either in departments with more than 5 employees or have a job title with a minimum salary above 10000, or both. Exclude those in departments where the manager earns less than their department's average.

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	TYPE
108	Nancy	Gruenberg	Large Dept

2. For each country, count the number of departments. Display only the country\_name and department\_count, in ascending order of the country\_name. Include the countries having no departments, too.

COUNTRY_NAME	DEPARTMENT_COUNT
Australia	0

3. For each department, find the employee\_id, full\_name, salary, department\_name, and job title of the second-highest-paid employee(s) i.e. employee(s) having the second-highest salary. If a department has fewer than two employees, do not include it in the results. Display the output in descending order of the salary. If two employees have the same salary, prioritize the one whose department name is lexicographically smaller. If a tie still exists, prioritize the employee with the lower employee\_id.

EMPLOYEE_ID	FULL_NAME	SALARY	DEPARTMENT_NAME	JOB_TITLE
101	Neena Yang	17000	Executive	Administration Vice President

4. Find the employee\_id, first\_name, and salary of employees in descending order of the salary and ascending order of the employee ID, who meet **exactly one** of the following two conditions:
  - a. They report to a manager whose salary is greater than 15000.
  - b. They work in a department located in 'Seattle'.

EMPLOYEE_ID	FIRST_NAME	SALARY
100	Steven	24000

5. Find employees (first and last name), their departments, and salary, for those who earn more than the average salary in their own department. Only consider departments where there is at least one

employee earning less than the company average salary and at least one earning more than the company average salary. Use a CASE statement to categorize salary as 'High' (if above 10,000), 'Medium' (if between 5,000 and 10,000), or 'Low' (if below 5,000).

FIRST_NAME	LAST_NAME	DEPARTMENT_NAME	SALARY	SALARY_CATEGORY
Michael	Martinez	Marketing	13000	High