SQL Beginner to Intermediate Practice Questions with Solutions

## 1. Retrieve all employees from the employees\_large\_dataset table.

SELECT \* FROM employees\_large\_dataset;

## 2. Find the number of employees in each department.

SELECT dept\_name, COUNT(\*) AS total\_employees  
FROM employees\_large\_dataset  
GROUP BY dept\_name;

## 3. Get employees with salary greater than 50,000.

SELECT emp\_name, salary  
FROM employees\_large\_dataset  
WHERE salary > 50000;

## 4. Find the average salary in each department.

SELECT dept\_name, AVG(salary) AS avg\_salary  
FROM employees\_large\_dataset  
GROUP BY dept\_name;

## 5. Retrieve employees hired after 2015.

SELECT emp\_name, hire\_date  
FROM employees\_large\_dataset  
WHERE YEAR(hire\_date) > 2015;

## 6. List employees in the 'IT' department earning more than 60,000.

SELECT emp\_name, dept\_name, salary  
FROM employees\_large\_dataset  
WHERE dept\_name = 'IT' AND salary > 60000;

## 7. Get the top 5 highest-paid employees.

SELECT emp\_name, salary  
FROM employees\_large\_dataset  
ORDER BY salary DESC  
LIMIT 5;

## 8. Find the total salary expense of the company.

SELECT SUM(salary) AS total\_salary\_expense  
FROM employees\_large\_dataset;

## 9. Show employees whose name starts with 'A'.

SELECT emp\_name  
FROM employees\_large\_dataset  
WHERE emp\_name LIKE 'A%';

## 10. Find employees who do not have a manager assigned.

SELECT emp\_name  
FROM employees\_large\_dataset  
WHERE manager\_id IS NULL;

## 11. Get the maximum and minimum salary in each department.

SELECT dept\_name, MAX(salary) AS max\_salary, MIN(salary) AS min\_salary  
FROM employees\_large\_dataset  
GROUP BY dept\_name;

## 12. Show employees who joined in the year 2020.

SELECT emp\_name, hire\_date  
FROM employees\_large\_dataset  
WHERE YEAR(hire\_date) = 2020;

## 13. Find employees whose bonus month is in December.

SELECT emp\_name, bonus, hire\_date  
FROM employees\_large\_dataset  
WHERE MONTH(hire\_date) = 12;

## 14. Find the most recently hired employee in each department.

WITH ranked\_one\_emp AS (  
 SELECT emp\_name, dept\_name, hire\_date,  
 RANK() OVER (PARTITION BY dept\_name ORDER BY hire\_date DESC) AS most\_recent\_emp  
 FROM employees\_large\_dataset  
)  
SELECT emp\_name, dept\_name, hire\_date  
FROM ranked\_one\_emp  
WHERE most\_recent\_emp = 1;

## 15. Count employees hired in the last 10 years grouped by quarter.

SELECT COUNT(emp\_name) AS total\_employees,  
 YEAR(hire\_date) AS hire\_year,  
 QUARTER(hire\_date) AS hire\_quarter  
FROM employees\_large\_dataset  
WHERE hire\_date > DATE\_SUB(CURDATE(), INTERVAL 10 YEAR)  
GROUP BY YEAR(hire\_date), QUARTER(hire\_date)  
ORDER BY hire\_year, hire\_quarter;