***Oracle SQL Assignment Questions***

### 1. \*\*Basic SELECT Query\*\*

- Write an SQL query to retrieve all columns from the `employees` table.

Answer: SELECT \* FROM employees;

### 2. \*\*Filtering Data\*\*

- Write an SQL query to find all employees who are working in the "Sales" department.

Answer: SELECT \* FROM employees

WHERE department = 'Sales';

### 3. \*\*Sorting Data\*\*

- Write an SQL query to get the names and salaries of employees in the "Marketing" department, sorted by their salaries in descending order.

Answer: SELECT name, salary FROM employees

WHERE department = 'Marketing'

ORDER BY salary DESC;

### 4. \*\*Using Aggregate Functions\*\*

- Write an SQL query to calculate the average salary of employees in the "HR" department.

Answer: SELECT AVG(salary) AS average\_salary FROM employees

WHERE department = 'HR';

### 5. \*\*Group By Clause\*\*

- Write an SQL query to find the total number of employees in each department.

Answer: SELECT department, COUNT(\*) AS total\_employees FROM employees

GROUP BY department;

### 6. \*\*Using DISTINCT\*\*

- Write an SQL query to list all unique job titles from the `employees` table.

Answer: SELECT DISTINCT job\_title FROM employees;

### 7. \*\*Using LIKE Operator\*\*

- Write an SQL query to retrieve all employees whose names start with the letter "J".

Answer: SELECT \* FROM employees

WHERE name LIKE 'J%';

### 8. \*\*Using AND/OR Conditions\*\*

- Write an SQL query to find employees who are either in the "IT" department or have a salary greater than $50,000.

Answer: SELECT \* FROM employees

WHERE department = 'IT' OR salary > 50000;

### 9. \*\*Joining Tables (Inner Join)\*\*

- Write an SQL query to display employee names along with their department names by joining the `employees` and `departments` tables.

Answer; SELECT e.name, d.department\_name

FROM employees e

INNER JOIN departments d ON e.department\_id = d.department\_id;

### 10. \*\*Joining Tables (Left Join)\*\*

- Write an SQL query to display all employees and their department names, including those employees who are not assigned to any department.

Answer: SELECT e.name, d.department\_name

FROM employees e

LEFT JOIN departments d ON e.department\_id = d.department\_id;

### 11. \*\*Subqueries\*\*

- Write an SQL query to find employees whose salary is greater than the average salary in the `employees` table.

Answer: SELECT \* FROM employees

WHERE salary > (SELECT AVG(salary) FROM employees);

### 12. \*\*Using IN Operator\*\*

- Write an SQL query to list all employees who belong to the departments "Sales", "Marketing", or "HR".

Answer: SELECT \* FROM employees

WHERE department IN ('Sales', 'Marketing', 'HR');

### 13. \*\*Using BETWEEN Operator\*\*

- Write an SQL query to find employees whose salaries are between $40,000 and $60,000.

Answer: SELECT \* FROM employees

WHERE salary BETWEEN 40000 AND 60000;

### 14. \*\*Using EXISTS\*\*

- Write an SQL query to find departments that have at least one employee with a salary greater than $70,000.

Answer: SELECT \* FROM departments d

WHERE EXISTS (

SELECT 1 FROM employees e

WHERE e.department\_id = d.department\_id AND e.salary > 70000

);

### 15. \*\*Date Functions\*\*

- Write an SQL query to find all employees who joined after January 1, 2020.

Answer: SELECT \* FROM employees

WHERE join\_date > '2020-01-01';

### 16. \*\*Updating Data\*\*

- Write an SQL query to increase the salary of all employees in the "IT" department by 10%.

Answer: UPDATE employees

SET salary = salary \* 1.10

WHERE department = 'IT';

### 17. \*\*Deleting Data\*\*

- Write an SQL query to delete all employees who are no longer with the company.

Answer; DELETE FROM employees

WHERE status = 'inactive'; -- Assuming 'status' column tracks employment

### 18. \*\*Creating a Table\*\*

- Write an SQL query to create a table called `customers` with columns `customer\_id`, `first\_name`, `last\_name`, `email`, and `phone\_number`.

Answer: CREATE TABLE customers (

customer\_id INT PRIMARY KEY,

first\_name VARCHAR(50),

last\_name VARCHAR(50),

email VARCHAR(100),

phone\_number VARCHAR(20)

);

### 19. \*\*Modifying a Table (ALTER)\*\*

- Write an SQL query to add a new column `hire\_date` to the `employees` table.

Answer: ALTER TABLE employees

ADD hire\_date DATE;

### 20. \*\*Dropping a Table\*\*

- Write an SQL query to drop the `temporary\_employees` table if it exists.

Answer: DROP TABLE IF EXISTS temporary\_employees;