☑ ~~ASSIGNMENT NO 1~~

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1. **What is the ceiling value of 54.6799?**

➔ SELECT CEIL(54.6799) AS ceil_value FROM DUAL;
-- Output: 55

2. **If we want to sort salaries in descending order according to column position what will be the query?**

➔ SELECT * FROM employees ORDER BY 2 DESC;

3. **What are wild characters?**

➔ Wild characters are used in SQL for pattern matching in LIKE statements:
   1. SELECT * FROM employees WHERE first_name LIKE 'A%';
   2. SELECT * FROM employees WHERE first_name LIKE 'J_n';

4. **What is a dual table?**

➔ SELECT SYSDATE FROM DUAL;

5. **Which operator would you use to combine the data of two columns in one single column?**

➔ SELECT first_name || ' ' || last_name AS full_name FROM employees;

6. **How many are character manipulation functions?**

➔ UPPER, LOWER, INITCAP, LENGTH, SUBSTR, TRIM, LTRIM, RTRIM, INSTR, REPLACE, CONCAT.

7. **Which data types are available in SQL?**

➔ **i.** CHAR **ii.** DECIMAL **iii.** DATE **Iv.** VARCHAR

8. **What is a NULL value?**

➔ NULL is a placeholder representing missing or undefined values in a database.

9. **Display first_name of all employees who start with ‘A’, ’D’, and’M’.**

➔ SELECT first_name FROM employees WHERE SUBSTR(first_name, 1, 1) IN ('A', 'D', 'M');

10. **Write a query to display a unique job_id from the employee's table.**

➔ SELECT DISTINCT job_id FROM employees;

11. **Display the first, job and salary for all employees whose job is a salesman or clerk whose salary is not equal to $2,500,$3500, or $7000.**

➔ SELECT first_name, job, salary FROM employees WHERE job IN ('SALESMAN', 'CLERK') AND salary NOT IN (2500, 3500, 7000);

12. **Display sysdate in the format ‘MONDAY,01 JUNE,2001’.**

➔ SELECT TO_CHAR(SYSDATE, 'DAY, DD MONTH, YYYY') AS formatted_date FROM DUAL;

13. **What is the position of the second ‘3’ in the following string ‘1245378783’.**

➔ SELECT INSTR('1245378783', '3', 1, 2) AS position_of_second_3 FROM DUAL;
-- Output: 9

14. **What is the output of ROUND(TRUNCATE (MOD (1600, 10), 1), 2)?**

➔ MOD(1600, 10) = 0. TRUNCATE(0, 1) = 0. ROUND(0, 2) = 0. Output: 0

15. **What will be the output of SELECT LTRIM (RTRIM ('!!*ATHEN*!!', '!'), '!') FROM DUAL;**

➔ SELECT LTRIM(RTRIM('!!*ATHEN*!!', '!'), '!') AS trimmed_string FROM DUAL; Output: '*ATHEN*'

16. **For each employee, display the employee's last name, and calculate the number of months between today and**

➔ the date the employee was hired.
```
SELECT last_name, MONTHS_BETWEEN(SYSDATE, hire_date) AS months_since_hired
FROM employees;
```

17. **Write a query to extract the YEAR from the HIRE_DATE column of the EMPLOYEES table for those employees**

➔ who work in department 10.
```
SELECT EXTRACT(YEAR FROM hire_date) AS hire_year FROM employees
WHERE department_id = 10;
```

18. **Write a SQL statement to find the length of the first_name, and the numeric position of the letter "a" in the first_name column and those employees whose first_name ends with a letter "n"?**

➔
```
SELECT first_name, LENGTH(first_name) AS name_length, INSTR(first_name, 'a') AS position_of_a
FROM employees
WHERE first_name LIKE '%n';
```

19. **Select unique records from employees tables**

➔ SELECT DISTINCT * FROM employees;

20. **Display the first_name, last_name, salary, job_id from employee Whose salary is between 10000,15000.**

➔
```
SELECT first_name, last_name, salary, job_id FROM employees
WHERE salary BETWEEN 10000 AND 15000;
```

21. **Display the records of employees whose department_id is 90,70,50**

➔
```
SELECT * FROM employees
WHERE department_id IN (90, 70, 50);
```

22. **Display all records of employees whose name start with A and d at third position from last.**

➔
```
SELECT * FROM employees
WHERE first_name LIKE 'A%' AND SUBSTR(first_name, -3, 1) = 'd';
```

23. **Sort the employees table according to hire_date.**

➔ SELECT * FROM employees ORDER BY hire_date;

24. **Select all records from the departments table.**

➔ SELECT * FROM departments;

25. **Display date after 3 days of hire_date.**

➔ SELECT hire_date + 3 AS date_after_3_days FROM employees;

26. **Concat first_name ,last_name department_id**

➔ SELECT first_name || ' ' || last_name || ' ' || department_id AS full_info FROM employees;

27. **Output in form :Steven King has a department_id 90**

➔ SELECT first_name || ' ' || last_name || ' has a department_id ' || department_id AS "Output" FROM employees WHERE first_name = 'Steven' AND last_name = 'King';