SQL Notes

1. What is Data ?

   ▼ Ans

   - Data is raw fact which describes the attribute of an Entity.

   where:

   attribute —> (Properties)

   Entity —> (Object)

2. What is Database ?

   ▼ Ans

   - It is a place where data can be stored in systematic and organized manner.

3. What are the basic operation performed on Database ?

   ▼ Ans

   - We can perform CRUD operation, it means
     1. Create / Insert
     2. Read / Retrieve
     3. Update / Modify
     4. Delete / Drop

4. What is DBMS ? (Data Base Management System)

   ▼ Ans

   - DBMS is a software we use to maintain and manage Database.
   - We use Query language to communicate with DBMS.

   ▼ Two Important factor are :-

     1. Security
     2. Authorization

   ▼ Types of DBMS software

     1. NDBMS (Network Data Base Management System)

2. HDBMS (Hierarchical Data Base Management System)
3. OODBMS (Object-Oriented Data Base Management System)
4. RDBMS (Relational Data Base Management System)

5. What is RDBMS ? (Relational Data Base Management System)

▼ Ans

- It is a type of DBMS software where data will be stored in form of table.
- We use Structural Query language to communicate RDBMS.

▼ Two Important factor are :-

1. Security
2. Authorization

6. What is relational Model ?

▼ Ans

- It is a concept designed by data scientist “E.F Codd”
- In Relational model, we store the data in the form tables.
- A DBMS which follows Relational Model becomes RDBMS.

DBMS ——follows—> Relational Model ——>RDBMS

7. Terminologies ?

▼ Ans

▼ Table

- Table is a logical organization of data which consist of rows and columns.

▼ Column

- Column is also referred as attribute of fields.

▼ Rows

- Rows also referred and records or tupples.

▼ Cell

- Cell is the smallest unit in the table in which we store data. the intersection of rows and column generate cells.

▼ Entity

- Anything which has its existence.

8. What is SQL ? why we need SQL ?

▼ Ans

- “Structural Query Language”
- “Standard Query Language”
- “sequel language”
- SQL is used for accessing, manipulating, and communicating with the database. Almost every function such as retrieving the data from the database, creating a new database, insertion, deletion and updating can be performed by using SQL.

▼ What is Query ?

- Query is a condition that is written by following syntax to retrieve data from Database.

or

- Query is a computer programming language that requests and retrieve the data from database by sending queries.

▼ What is Structure in SQL ? or Why SQL is called as Structural Query language ?

- SQL needs a structure for all its objects- like table creation, procedure creation etc. There is the common structure to create each database objects. that is why we call it as a Structural.

or

- SQL works on user entered structured and formal programming command based queries to find and extract data from host databases

2. Difference between DBMS & RDBMS ?

▼ Ans

- **In DBMS, data is stored as file, whereas in RDBMS, data is stored in the form of tables.**

RDBMS	DBMS
1) Data is stored in Table format.	1) Data is stored in File format.

RDBMS	DBMS
2) Data can be store in Large amount.	2) Data is stored in Small amount.
3) RDBMS supports Multiple User.	3) DBMS supports Single User.
4) While handling data, It provides multiple layers of Security.	4) While handling data, It provides low Security.
5) We can access Multiple data together.	5) We can access Individual data together.
6) Table data will be linked together.	6) There is no connection between data.
7) Normalization is not available.	7) Normalization is available.
8) Data redundancy is reduced with help the help of key and indexes	8) Data redundancy is comman.
9) It is requires high software and hardware.	9) It is requires low software and hardware.
10) Ex: Oracle, SQL Server.	10) Ex: XML, Microsoft Access.

3. Difference between RDBMS & Excel-Sheet ?

▼ Ans

RDBMS	Excel Sheet
1) RDBMS follows EF Codd rule (or) Relational Model.	1) Excel Sheet does not follows EF Codd rule (or) Relational Model.
2) We can store huge amount of data.	2) We can store limited amount of data.
3) It has the features of data security.	3) It does not has the features of data security.
4) Data retrieval is Easy. by using Queries.	4) Data retrieval is not Easy. we cannot use Queires here
5) We can store META data.	5) We cannot store META data.

Note : META data means details about the data.

4. Explain rules for E.F Codd ?

▼ Ans

- The data stored in the cell must be a single value data.
- In RDBMS we store everything in the form of tables including META data (the details about the data is META data)
- According to the E.F Codd we can store data in multiple tables, if need we can establish connection between two tables using key-attributes.

- We can validate the data entered into the table in two step. 1). Assigning data-type 2).Assigning constraints.

5. Name some RDBMS Database ?

▼ Ans

5. Explain Data-types ?

▼ Ans

- Data types are used to determine the what kind of data we are going to store in memory location. 5types of data-types in SQL.

▼ char

- char data type can accept character such as ‘A-B’, ’a-b’, ‘0-9’ or any special character.
- It is mandatory to provide size for it.
- Maximum size of char is 2000.
- It is a type of “Fixed length memory allocation”
- There is a wastage of memory in char.

▼ varchar/varchar2

- varchar data type can accept character such as ‘A-B’, ’a-b’, ‘0-9’ or any special character.
- It is mandatory to provide size for it.
- Maximum size of varchar is 2000.
- It is a type of “Variable length memory allocation”
- There is no wastage of memory in varchar.
- varchar2 is updated version of varchar i.e size is updated to 4000.

▼ number

- number data-type is used to store the numerical values.
- It can accept arguments 1).Precision 2).Scale

- Scale is use to determine the number of digits we are going to store in decimal place within the precision
- maximum precision we can store is 38.
- maximum Scale we can store is 127.

▼ date

- Two oracle specified date formats are. 1).'DD-MON-YY 2). 'DD-MON-YYYY'

▼ large object

▼ CLOB (character large object)

This is use to store the character up to 4GB of size.

▼ BLOB (Binary large object)

This is use to store the binary number of images, videos, file etc. up to 4GB

6. Difference between **char** and **varchar** ?

▼ Ans

Char	Varchar
1). Char is fixed length memory allocation	1). Varchar is variable length memory allocation
2). There is wastage of memory in char.	2). There is no wastage of memory in Varchar.
3). Char is a static type.	3). Varchar is a dynamic type.
4). Char data-type is used to store the phone number.	4). Varchar data-type is used to store the address.

7. Explain types **Constraints** ?

▼ Ans

- Constraints are the condition that are assigned to a particular column to validate the data.
- We have 5 types of constraints

▼ Unique

- Unique is a constraints which is assigned to a particular column which cannot accept repeated or duplicate value.

▼ Not null

- Not null is a constraints which is assigned to a particular column which cannot accept Null.

▼ Check

- Check is a constraint which is assigned to a particular column for extra validation.

▼ Primary key

- Primary key is a constraint which is used to assigned to a particular column to identify a record uniquely from the table.

▼ Foreign key

- Foreign key is constraint which is used to establish the connection between two tables.

8. What is the difference between **Primary key** and **Foreign key** ?

▼ Ans

Primary Key	Foreign Key
1) We can have only One Primary key in a table.	1) We can have n number of Foreign key in a table.
2) It cannot accept repeated (or) duplicate values and also Null.	2) It can accept repeated (or) duplicate values and also Null.
3) It is combination of Unique and Not-Null.	3) It is not a combination of Unique and Not-Null.
4) Primary key is not mandatory but recommended to have one in Table.	4) Foreign key also called as "Referential Integrity Constraints"
	5) It is present in child table but actually belons to parent table.
	6) Only Primary key can travel to another table when it travels it becomes Foreign Key.

9. Why we use **check constraints** ?

▼ Ans

- Check is a constraint which is assigned to particular column for extra validation.

- Check constraints is assigned with a condition, if the condition is true the value gets accepted, else rejected.

10. Explain types of DQL ?

▼ Ans

DATA QUREY LANGUAGE

▼ SELECT

- This statement is used to retrieve the data from database and display it.

▼ PROJECTION

- This statement is used to retrieve the data from database by selecting only column.

▼ SELECTION

- This statement is used to retrieve the data from database by selecting both column as well as records.

▼ JOINS

- This statement is used to retrieve the data from multiple tables simultaneously.

11. Why we use Astricks ?

▼ Ans

- It used to determine “To select all the column”.

12. Why we use Alias concept ?

▼ Ans

- Alias is an alternative name given to a column or an expression in the result table.
- Alias name can be used with or without using ‘AS’ keyword.
- Alias names should be in Single word or String enclosed with double quotes.
- Alias is not mandatory but we recommended to provide.

13. Explain all clauses with order of execution ?

▼ Ans

13. Difference between Unique and Distinct clause ?

▼ Ans

DISTINCT	UNIQUE
1) Distinct is a clause.	1) Unique is a constraint.
2) Distinct clause will helps to remove duplicate or repeated values.	3) Unique constraint will helps to prevent from insertion of duplicate (or) repeated values.
3) Distinct clause is used to retrieve data from Column.	3) Unique constraint is used to assign to a column.

▼ old

DISTINCT	UNIQUE
1). Distinct is clause.	1). Unique is constraint.
2). Distinct is clause helps to remove duplicate or repeated values.	2). Unique is constraint helps to prevent from insertion of duplicate or repeated values.
3). Distinct is clause is used to retrieve data from column.	3). Unique is constraint is used to assign to a column.

14. Difference between Distinct clause and where clause?

▼ Ans

Filter condition =

Distinct Clause	where Clause
1. Distinct clause is used to remove the repeated value or duplicate value in result table. 2. For distinct clause we can pass column name or an expression as an argument in select clause. 3. distinct clause removes the combination of duplicates from all columns. 4. distinct clause should be used as a first argument.	1. Where Clause is used to filter the records. 2. For where clause we can pass filter condition as an argument. 3. Where clause executes after the execution of from clause. 4. Where clause execute row by row.

15. Explain types of Operators ?

▼ Ans

▼ Arithmetic operator

+, -, *, /, %

▼ Comparison Operator

= , ≠

▼ Relational Operator

>, <, ≥, ≤

- Logical Operator

  AND, OR, NOT

  1. AND= Binary multiplication, return true if both condition satisfied true.
  2. OR= Binary addition, return true if any one condition satisfied true.
  3. NOT= It is used Negation.

- Concatenation Operator

  ||

- Special Operator

  (IN, NOT IN), (BETWEEN,NOT BETWEEN), (LIKE,NOT LIKE), (IS,IS NOT)

  IN=

  - IN

    1. It is multi valued operator
    2. return true if any one condition satisfied true, replacement of OR operator & equal Operator.

  - NOT IN

    same as IN operator but it rejects the value instead of selecting it.

  - BETWEEN

    used whenever we have ranges

  - NOT BETWEEN

    same as BETWEEN operator but it rejects the value instead of selecting it

  - LIKE

    used to match the pattern

  - NOT LIKE

    same as LIKE operator but it rejects the value instead of selecting it

  - IS

    used only to compare with NULL

  - IS NOT

same as IS operator but it rejects the value instead of selecting it.

▼ Sub-Query Operator

ALL, ANY

▼ ALL

1. is a special operator which can accept multi values at RHS.
2. It will return true only if all the condition at RHS is satisfied

▼ ANY

1. is a special operator which can accept multi values at RHS.
2. It will return true only if any one of the condition at RHS is satisfied

16. Why we use Like Operator ?

▼ Ans

- LIKE operator is used whenever we need to “match the pattern”.

17. Explain about Sub-Query and Difference between Single row sub-query and multi row Sub-query ?

▼ Ans

▼ *Sub-Query* = Query written inside another Query.

- In this query we have 2 query 1).Outer query 2). Inner query
- Inner query will execute first and generate the output. that output is input for outer query and output of outer query is the result.

▼ when we use sub-query.

1). whenever we have unknow

2).when ever the data to be select and condition to be executed are present in different tables we use sub-query.

▼ Types of Sub-query.

▼ 1).Single row Sub-query.

- which returns exactly one output.
- we can use operator such as IN,NOT ĪN,ALL,ANY.

▼ 2).Multi-row sub-query.

- which returns more then one output.
- we must use IN,NOT ĪN,ALL,ANY.

18. Explain about Function ?

▼ Ans

- Function is the list of instruction that are used to perform some specific task. Function has 2 type,

▼ User-defined function.

.

▼ In-built function. (has 2 types)

▼ Single-row Function

- Single row function executes row-by-row.
- It takes one input and generate one output then goes to the next input.
- If we pass ‘n’ number of input to single row function, it returns ‘n’ number of output.

There are 13 Single Row Function , we have :-

▼ Dual

- Dual is a dummy table use to print the result of any mathematic operation done.

▼ UPPER

- UPPER() function is used to convert the given String into upper case.

▼ Syntax

```
SELECT UPPPER('STRING')
FROM DUAL;
```

▼ Example

```
SELECT UPPPER('manu')
FROM DUAL;
----------OUTPUT--------
MANU
```

▼ LOWER

- LOWER() function is used to convert the given String into lower case.

▼ Syntax

```
SELECT LOWER('STRING')
FROM DUAL;
```

▼ Example

```
SELECT LOWER('MANU')
FROM DUAL;
---------OUTPUT-----------
manu
```

▼ INITCAP

- INITCAP() function is used to convert the initial character of given String into upper case.

▼ Syntax

```
SELECT INITCAP ("STRING")
FROM DUAL;
```

▼ Example

```
SELECT INITCAP ("manu km")
FROM DUAL;
----------OUTPUT---------
Manu Km
```

▼ LENGTH

- LENGTH() function is used to count the number of character that are present in the String.

▼ Syntax

```
SELECT LENGTH('String')
FROM DUAL;
```

▼ Example

```
SELECT LENGTH('MANU')
FROM DUAL;
--------OUTPUT----------
4
```

1. WQTD Ename who are having only 5charactar in their name using SRF ?

   ▼ Ans

   ```
   SELECT ENAME
   FROM EMP
   WHERE LENGTH(ENAME)=5;
   ```

▼ REVERSE

- REVERSE() function is used to reverse the given String.

  ▼ Syntax

  ```
  SELECT REVERSE('String')
  FROM DUAL;
  ```

  ▼ Example

  ```
  SELECT REVERSE('MANU')
  FROM DUAL;
  -----------OUTPUT--------
  UNAM
  ```

▼ SUBSTR

- SUBSTR() function used to extract the part of the String from the given original String.

  ▼ Syntax

```
SELECT SUBSTR("ORIGINAL_STRING",POSITION[LENGTH])
FROM DUAL;
```

▼ Example

```
SELECT SUBSTR("BANGALORE",1,1)
FROM DUAL;           //B

SELECT SUBSTR("BANGALORE",0,0)
FROM DUAL;           //

SELECT SUBSTR("BANGALORE",1,2)
FROM DUAL;           //BA

SELECT SUBSTR("BANGALORE",0,2)
FROM DUAL;             //BA

SELECT SUBSTR("BANGALORE",1,3)
FROM DUAL;           //BAN

SELECT SUBSTR("BANGALORE",0,3)
FROM DUAL;           //BAN

SELECT SUBSTR("BANGALORE",1,5)
FROM DUAL;           //BANGA

SELECT SUBSTR("BANGALORE", ,1)
FROM DUAL;           //BANGALORE

SELECT SUBSTR("BANGALORE", ,3)
FROM DUAL;           //NGALORE

SELECT SUBSTR("BANGALORE",-2,2)
FROM DUAL;           //RE

SELECT SUBSTR("BANGALORE",-3,2)
FROM DUAL;           //L
```

1. WQTD employees name whose names starts with VOWEL (A,E,I,O,U) ?

   ▼ Ans

   ```
   SELECT ENAME
   FROM EMP
   WHERE SUBSTR(ENAME,0,1) in ('A','E','I','O','U');
   ```

2. WQTD Ename and job of emp's, if the job starts with String MAN or ends with String MAN ?

   ▼ Ans

```
SELECT ENAME,JOB
FROM EMP
WHERE SUBSTR(JOB,1,3) IN 'MAN' OR
      SUBSTR(JOB,-3,3) IN 'MAN';
```

3. WQTD Ename in lower case and job in reverse format, if the emp's name having 6 character ?

   ▼ Ans

```
SELECT LOWER(ENAME),REVERSE(JOB)
FROM EMP
WHERE LENGTH(ENAME)=6;
```

4. WQTD Details of emp's, if their name starts with 'A' or 'S' using SRF (Single Row Function) ?

   ▼ Ans

```
SELECT *
FROM EMP
WHERE SUBSTR(ENAME,1,1) IN 'A' OR
      SUBSTR(ENAME,1,1) IN 'S';
```

5. WQTD the first three character of all the employees ?

   ▼ Ans

```
SELECT ENAME
FROM EMP
WHERE SUBSTR(ENAME,1,3);
```

6. WQTD Details of emp's, if their name starts with 'A' using SRF (Single Row Function) ?

   ▼ Ans

```
SELECT *
FROM EMP
WHERE SUBSTR(ENAME,1,1) IN 'A';
```

7. WQTD first character of all the employees from employee table ?

▼ Ans

```
SELECT SUBSTR(ENAME,1,1)
FROM EMP;
```

▼ MOD

- MOD() function is used to obtain modules of the given number. (Reminder)

▼ Syntax

```
SELECT column-name
FROM table-name
WHERE MOD(column-name,2)=1;  --> (for Odd)

(or)

SELECT column-name
FROM table-name
WHERE MOD(column-name,2)=0;  --> (for Even)
```

▼ Example

1. WQTD details of employees whose Empno is an odd number ?

▼ Ans

```
SELECT *
FROM EMP
WHERE MOD(EMPNO,2)=1;
```

2. WQTD details of employees whose Empno is an even number ?

▼ Ans

```
SELECT *
FROM EMP
WHERE MOD(EMPNO,2)=0;
```

▼ TO_CHAR

- TO_CHAR() function is used to convert the given String date to string format.

▼ Syntax

```
TO_CHAR (date,'format-model')
```

▼ Example (current date)

```
---------For full Date---------------------------
SELECT TO_CHAR(SYSDATE,'DY-MON-YEAR')
FROM DUAL;          //FRI-NOV-TWENTY TWENTY-TWO

---------For only Day----------------------------
SELECT TO_CHAR(SYSDATE,'DY')
FROM DUAL;          //FRI

---------For only Month--------------------------
SELECT TO_CHAR(SYSDATE,'MON')
FROM DUAL;          //NOV

---------For only Year---------------------------
SELECT TO_CHAR(SYSDATE,'YEAR')
FROM DUAL;          //TWENTY TWENTY-TWO
```

▼ Example

1. WQTD Employees name, who were hired in the month FEB ?

▼ Ans

```
SELECT ENAME
FROM EMP
WHERE HIREDATE LIKE '%FEB%';
```

2. WQTD Employees name, who were hired in the month FEB Using SRF?

   ▼ Ans

```
SELECT ENAME
FROM EMP
WHERE TO_CHAR (HIREDATE,'MON') IN 'FEB';
```

3. WQTD Employees name, who were hired in the month FEB,NOV,DEC Using SRF?

   ▼ Ans

```
SELECT ENAME
FROM EMP
WHERE TO_CHAR (HIREDATE,'MON') IN ('OCT','NOV','DEC');
```

4. WQTD details of employees, who were hired on wednesday or monday Using SRF?

   ▼ Ans

```
SELECT *
FROM EMP
WHERE TO_CHAR(HIREDATE,'DY') IN ('MON','WED');
```

5. WQTD Employees name, who were hired in the year 81,83,84 Using SRF?

   ▼ Ans

```
SELECT *
FRROM EMP
WHERE TO_CHAR(HIREDATE,'YY') IN (81,83,84);
```

6. WQTD Details of employees, who were hired on 17,19 or 22 Using SRF?

   ▼ Ans

```
SELECT *
FROM EMP
WHERE TO_CHAR(HIREDATE,'DD') IN (17,18,19,22);
```

▼ SYSDATE / CURRENT_DATE

- SYSDATE is used to obtain the Present date from the Database.

▼ Syntax

```
SYSDATE OR CURRENT_DATE
```

▼ Example

```
SELECT SYSDATE
FROM DUAL;

(OR)

SELECT CURRENT_DATE
FROM DUAL;
```

▼ SYSTIMESTAMP

- SYSTIMESTAMP function is used to obtain the date and time along with time zone.

▼ Syntax

```
SYSTIMESTAMP
```

▼ Example

```
SELECT SYSTIMESTAMP
FROM DUAL;
```

▼ TO DATE

- TO_DATE() is used to convert the date String to date format.

▼ Syntax

```
TO_CHAR('DATE_STRING')
```

▼ Example

```
SELECT TO_CHAR(TO_DATE('29-SEP-1999'),'DAY')
FROM DUAL;
-------------OUTPUT---------
WEDNESDAY
```

▼ INSTR

- INSTR() function is used to obtain index value of the substring which is present in the Original String.

▼ Syntax

```
INSTR('Original-string','Sub-str',position,[Nth Occurance])

Nth occurance - No.of time, it is present.
```

▼ Example

```
// B A N A N A
// 1 2 3 4 5 6

SELECT INSTR('BANANA','A',1,1)
FROM DUAL;              //2

SELECT INSTR('BANANA','A',1,2)
FROM DUAL;              //4

SELECT INSTR('BANANA','A',1,3)
FROM DUAL;              //6

SELECT INSTR('BANANA','A',2,1)
FROM DUAL;              //2

SELECT INSTR('BANANA','A',2,2)
FROM DUAL;              //4

SELECT INSTR('BANANA','AN',1,1)
FROM DUAL;              //2

SELECT INSTR('BANANA','AN',1,2)
FROM DUAL;              //4
```

1. WQTD details of employees, if their name having character ‘A’ Using SRF ?

    ▼ Ans

    ```
    SELECT *
    FROM EMP
    WHERE INSTR(ENAME,'A',1,1)>0;
    ```

2. WQTD Ename of employees in lower case, if employees are having character ‘A’ present at-least twice in their name using SRF ?

    ▼ Ans

    ```
    SELECT LOWER(ENAME)
    FROM EMP
    WHERE INSTR(ENAME,'A',1,2)>1;
    ```

▼ Multi-Row Function / Group function / Aggregate function

- Multi row function is also know as group function or aggregate function.
- It executes group-by-group.
- It takes all input at once and combines it and generate one output.
- If we pass ‘n’ number of input to multi row function, it returns single output.

There are 5 Multi Row Function , we have :-

1. MAX
2. MIN
3. SUM
4. AVG
5. COUNT

20. Can we use Multi-row function in where clause, if no why ?

    ▼ Ans

- We cannot use use multi-row function in where clause. because where clause executes row-by-row where as multi-row function executes group-by-group.

20. Explain about Having clause, Group by clause, Order by ?

▼ Ans

HAVING	GROUP BY	ORDER BY
1). Having clause is used to filter the group.	1). Group by clause is used to group the records.	1). Order by clause is used to sort the records ascending or descending order.
2). Having clause executes group-by-group.	2). Group by clause executes row-by-row.	2). Order by clause executes after SELECT clause.
3). For Having clause, we should pass multi-row function as an argument.	3). For Group by clause, we can column or an expression as an argument.	3). For Order by clause, we can column or an expression as an argument.
4). Having clause cannot be used without Group by clause.	4). We can write Group by expression along with multi-row function in SELECT clause.	4). BY default, Order by clause sort the records in ascending order.

22. Explain about Sub-String ?

▼ Ans

- SUBSTRING **function used to retrieve characters from a string. we can retrieve any number of substrings from a single string.**

24. Explain about types of Join ?

▼ Ans

- **Join statement is used to retrieve the data from multiple table simultaneously.**

▼ Cartesian Join or Cross Join

- In cartesian join record from table 1 will be merged with all the record from of table 2

▼ Inner join

- we use inner join to get only the matched records.

▼ Syntax

```
SELECT column-name1,column-name2
FROM table-name1,table-name2
WHERE <filter-codition>;
```

▼ Example

```
SELECT ENAME,DNAME
FROM EMP,DEPT
WHERE EMP.DEPTNO = DEPT.DEPTNO;
```

- we use join condition to obtain the matched records.

▼ join condition

- It is a condition on which we merge two tables to get only the matched record.

▼ Syntax

```
table-name1.column-name = table-name2.column-name;
```

▼ Example

```
EMP.DEPTNO = DEPT.DEPTNO;
```

▼ WQTD Ename and Dname of the Employees, who are getting commission in department 10 or 30 ?

```
SELECT ENAME,DNAME
FROM EMP,DEPT
WHERE EMP.DEPTNO=DEPT.DEPTNO AND COMM IS NOT NULL AND EMP.DEPTNO IN (10,30);
```

▼ WQTD Ename and Empno for all the Employees, who's Empno are (7839,7902) and are working in location new york ?

```
SELECT DNAME,EMPNO
FROM EMP,DEPT
WHERE EMP.DEPTNO=DEPT.DEPTNO AND EMPNO IN (7839,7902) AND LOC IN 'NEW YORK';
```

▼ WQTD Ename and Dname , who are earning more then smith ?

```
SELECT ENAME,DNAME
FROM EMP,DEPT
WHERE EMP.DEPTNO=DEPT.DEPTNO AND SAL>(SELECT SAL
                                      FROM EMP
                                      WHERE ENAME IN 'SMITH');
```

▼ Outer join

- We use outer join to get the matched records along with the unmatched records.

▼ Left outer join

- We use left outer join to get the unmatched records of left table along with matched records.

▼ Syntax

```
SELECT column-name
FROM table-name1,table-name2
WHERE table-name1.column-name = table-name2.column-name(+);
```

▼ Example

```
SELECT *
FROM EMP,DEPT
WHERE EMP.DEPTNO=DEPT.DEPTNO(+);
```

▼ Right outer join

- We use right outer join to get unmatched records of right table along with matched records.

▼ Syntax

```
SELECT column-name
FROM table-name1,table-name2
WHERE table-name1.column-name(+) = table-name2.column-name;
```

▼ Example

```
SELECT *
FROM EMP,DEPT
WHERE EMP.DEPTNO(+)=DEPT.DEPTNO(+);
```

▼ Full outer join

- We use full outer join to get unmatched records of both tables along with matched record.

▼ Syntax

```
SELECT column-name
FROM table-name1 FULL OUTER JOIN table-name2
ON table-name1.column-name = table-name2.column-name;
```

▼ Example

```
SELECT *
FROM EMP FULL OUTER JOIN DEPT
ON EMP.DEPTNO=DEPT.DEPTNO;
```

▼ Self join

- We use self join to join the same two table or table itself.

▼ Why we use Self join ?

- If the data to be selected and condition to be executed is present in the same table but in different record, we use self join.
- When 2 column names are same and table also same.

▼ Syntax

```
SELECT column-name
FROM table-name1,table-name2
WHERE <filter-conition>;
```

▼ Example

```
SELECT E1.ENAME,E2.ENAME
FROM EMP E1,EMP E2
WHERE E1.MGR = E2.EMPNO;
```

▼ Natural join

- If table contains similar column we get the output of inner join, if table does not contains similar column we get the output of cartesian join.

▼ Why and When we use Natural Join ?

- Whenever there is no table structure, we use natural join.

▼ Syntax

```
SELECT column-name
FROM table-name1 NATURAL JOIN table-name2;
```

▼ Example

```
SELECT *
FROM EMP NATURAL JOIN DEPT;
```

▼ Note: When we use join ?

- When we want select data from two or more different table

25. When we use sub-query and inner join ?

▼ Ans

- If we want to select a multiple column or single column from same table, then we go with sub-query. (or) When ever the data to be select and condition to be executed are present in different table, we use sub-query.
- If we want to select a multiple column from two or more different table, we use Join.

25. Explain about types of SQL statement ?

▼ Ans

- Statements are used to perform CRUD operation in Database. There are 5 statements in SQL

▼ DDL (Data Definition Language)

- DDL statement is used for create, delete, alter, rename the Table in database.

▼ Create

- Create statement is used to create an object in database.

▼ Syntax

```
CREATE TABLE table_name
{
COLUMN-NAME-1 DATATYPE NOT NULL/ [NULL],
COLUMN-NAME-2 DATATYPE NOT NULL/ [NULL],
COLUMN-NAME-N DATATYPE NOT NULL/ [NULL],
CONSTRAINTS constraint-ref-name UNIQUE(COLUMN-NAME),
CONSTRAINTS constraint-ref-name CHECK(CONDITION),
CONSTRAINTS constraint-ref-name PRIMARY KEY(COLUMN-NAME),
CONSTRAINTS constraint-ref-name FOREIGN KEY(COLUMN-NAME),
REFERENCES parent-table-name(COLUMN-NAME)
);
```

▼ Example

```
CREATE TABLE CUSTOMER
(
CID NUMBER(4) NOT NULL,
CNAME VARCHAR(40) NOT NULL,
CNUM NUMBER(10) NOT NULL,
ADDRESS VARCHAR(30) NOT NULL,
CONSTRAINT CID_AK PRIMARY KEY(CID),
CONSTRAINT CNUM_C CHECK(LENGTH(CNUM)=10)
);
```

▼ Rename

- Rename statement is used to rename the current table name to new table name.

▼ Syntax

```
RENAME current-table-name TO new-table-name;
```

▼ Example

```
RENAME CUSTOMER TO MANU;
```

▼ Alter

- Alter statement is used to modify the object in database.

▼ add new column to table

▼ Syntax

```
ALTER TABLE table-name
ADD column-name DATATYPE CONSTAINTS;
```

▼ Example

```
ALTER TABLE CUSTOMER
ADD CMANU VARCHAR(20) NOT NULL;

/*(This Query is used for only When we created a New Table and before
Inserting the records we can assign Not Null constraint there.
But if you already created a table and inserted some records,
if we want to add New column to existing table, you should assign
constraint as Null, once we assign NULL as constraint we can
update that null to any other value but remember we cannot
insert a record to that column again which stored as a Null,
we can update that record as any another value by using
by using UPDATE statement in DML)*/
```

▼ remove column from table

▼ Syntax

```
ALTER TABLE table-name
DROP COLUMN column-name;
```

▼ Example

```
ALTER TABLE CUSTOMER
DROP COLUMN CMANU;
```

▼ change column name

▼ Syntax

```
ALTER TABLE table-name
RENAME COLUMN current-column-name TO new-column-name;
```

▼ Example

```
ALTER TABLE CUSTOMER
RENAME COLUMN VOTERID TO ADHAR;
```

▼ change the datatype

▼ Syntax

```
ALTER TABLE table-name
MODIFY column-name new-datatype;
```

▼ Example

```
ALTER TABLE CUSTOMER
MODIFY CNAME NUMBER(2);
(OR)
ALTER TABLE CUSTOMER
MODIFY CNAME VARCHAR(40);
```

▼ change NotNull to Null

▼ Syntax

```
ALTER TABLE table-name
MODIFY column-name existing-datatype NULL/NOT NULL;
```

▼ Example

```
ALTER TABLE CUSTOMER
MODIFY MAILID VARCHAR(20) NULL;
```

▼ change constraints

▼ Synatx

```
//UNIQUE
ALTER TABLE table-name
ADD CONSTRAINT constraint-ref-name UNIQUE(column-name);

//CHECK
ALTER TABLE table-name
ADD CONSTRAINT constraint-ref-name CHECK(condition);

//PRIMARY KEY
ALTER TABLE table-name
ADD CONSTRAINT constraint-ref-name PRIMARY KEY(column-name);
```

```
//FOREIGN KEY
ALTER TABLE table-name
ADD CONSTRAINT constraint-ref-name FOREIGN KEY(column-name)
REFERENCE parent-table-name(column-name);
```

▼ Example

```
//UNIQUE
ALTER TABLE CUSTOMER
ADD CONSTRAINT VOTERID_VO  UNIQUE(VOTERID);

//CHECK
ALTER TABLE CUSTOMER
ADD CONSTRAINT VOTERID_GH CHECK(LENGTH(VOTERID)=6);

//PRIMARY KEY
(i DOM'T KNOW HOW TO CHANGE PRIMARY KEY)

//FOREIGN KEY
ALTER TABLE CUSTOMER
ADD CONSTRAINT PID_O FOREIGN KEY(PID) REFERENCES PROD(PID);
ALTER TABLE CUSTOMER
ADD CONSTRAINT PID_O FOREIGN KEY(PID) REFERENCES PROD(PID);
```

▼ Truncate

- Truncate statement is used to delete all records from the table permanently.

▼ Syntax

```
TRUNCATE TABLE table-name;
```

▼ Example

```
TRUNCATE TABLE CUSTOMER;
(OR)
TRUNCATE TABLE PROD
```

▼ Drop

- Drop statement is used to delete the table along with table structure from the Database.

▼ Syntax

```
DROP TABLE table-name;
```

▼ Example

```
DROP TABLE CUSTOMER;
(OR)
DROP TABLE PROD;
```

▼ To view the recycle bin tables

▼ Syntax

```
SHOW RECYCLEBIN;
```

▼ Example

```
SHOW RECYCLEBIN;
```

▼ To Recover the table from recycle bin : (only in ORACLE)

▼ Syntax

```
FLASHBACK TABLE table-name TO BEFORE DROP;
```

▼ Example

```
FLASHBACK TABLE CUSTOMER TO BEFORE DROP;
(OR)
FLASHBACK TABLE PROD TO BEFORE DROP;
```

▼ To drop the table from recycle bin

▼ Syntax

```
PURGE TABLE table-name;
```

▼ Example

```
PURGE TABLE CUSTOMER;
(OR)
PURGE TABLE PROD;
(OR)
PURGE TABLE MANU;
```

▼ DML (Data Manipulation Language)

- DML statement is used for insertion, deletion and update the records in Database.

▼ Insert

- Insert statement is used to insert the records in the table.

▼ Syntax

```
INSERT INTO table-name (column1,column2,,) values (&column1,&column2,,);



---------------------------------
/       --> (for next record)
COMMIT; --> (for end)
```

▼ Example

```
INSERT INTO CUSTOMER (CID,CNAME,,) values (&CID,&CNAME,,);
```

▼ Note:-

- If we are using Insert statement means that cell or tupple must be empty it should stored as NULL ,we cannot use Insert statement as replacement purpose. Instead of that we should use UPDATE statement
- For Example, If our table contains or stored as NULL record, we cannot insert it again which is stored as NULL.

▼ Update

- Update statement is used to update the records in the table.

▼ Syntax

```
UPDATE table-name
SET column1=v1,column=v2,,,
WHERE <filter-condition>
```

▼ Example

```
UPDATE PROD
SET PNAME='RAGNAR',PRATE=20
WHERE PID=4;
```

1. WQTD update the 1st employee name from prod table to ‘ramesh’ ?

   ▼ Ans

   ```
   UPDATE PROD
   SET ENAME='RAMESH'
   WHERE PID=1;
   ```

2. WQTD update salary of all employees by 1000 ?

   ▼ Ans

   ```
   UPDATE MANU
   SET SAL=SAL+1000;
   ```

▼ Delete

- Delete statement is used to delete the particular record from the table.

▼ Syntax

```
DELETE
FROM table-name
WHERE <filter-condition>
```

▼ Example

```
DELETE
FROM PROD
WHERE PID=1;
```

▼ TCL (Transection Control Language)

- TCL statement is used for managing **and** controlling **the** transactions **in a** database**.**

▼ commit

- commit statement is used to save the transaction on database.

▼ Syntax

```
COMMIT;
```

▼ save point

- save point statement is used to mark the position on database.

▼ Syntax

```
SAVEPOINT savepoint-name;
```

▼ rollback

- rollback statement is used to go back or undo to the previous save point.

▼ Syntax

```
ROLLBACK TO save-name;
```

▼ DCL (Data Control Language)

- DCL is used to access permission for the stored data**.**

▼ grant

- grant statement is used to give the permission to another user.

▼ Syntax

```
GRANT sql-statement ON table-name TO user-name;
```

▼ Example

```
GRANT SELECT ON PROD TO HR;
```

- ▼ revoke
  - revoke statement is used to take back the permission from another user.
  - ▼ Syntax

```
REVOKE sql-statement ON table-name FROM user-name;
```

  - ▼ Example

```
REVOKE SELECT ON PROD FROM HR;
```

- ▼ DQL (Data Query Language)
  - DQL statement is used retrieve data from Database
  - ▼ SELECT
    - This statement is used to retrieve the data from database and display it.
  - ▼ PROJECTION
    - This statement is used to retrieve the data from database by selecting only column.
  - ▼ SELECTION
    - This statement is used to retrieve the data from database by selecting both column as well as records.
  - ▼ JOINS
    - This statement is used to retrieve the data from multiple tables simultaneously.

26. Explain difference between truncate, drop and delete?
    - ▼ Ans

TRUNCATE	DROP	DELETE
1). TRUNCATE is a DDL statement used delete all rows from table permanently. But it cannot delete the table structure.	1). DROP is a DDL statement used to delete Table along with the Table structure from Database.	1). DELETE is a DML statement used to delete a particular record from table.
2). We cannot use Rollback statement in TUNCATE statement, because TRUNCATE statement implicitly uses COMMIT statement.	2). We cannot use Rollback statement in DROP statement, because DROP statement implicitly uses COMMIT statement.	2). We can use Rollback statement to restore the record.
3). We cannot delete single record by using TRUNCATE statement.		3). We can delete single record or all record at once by using DELETE statement.
4). Comparatively faster then DELETE statement.		4). Comparatively slower than TRUNCATE statement.
5). TRUNCATE statement is not transaction safe.		5). DELETE statement is transaction safe.

21. Explain about types of Key-attributes ?

▼ Ans

▼ Key-Attribute

- An attribute which is used to identify a record uniquely from the table is called Key-Attribute.

▼ Non Key-Attributes

- All attributes except key-attribute are referred as Non key-Attribute.

▼ Prime Key-Attributes

- Among all the key-Attributes, An attribute is chosen to be the main attribute which is used to identify a record uniquely from the table is know as Prime Key-Attributes.

▼ Non Prime Key-Attributes

- All the Key-Attributes except Prime key-Attribute are referred as Non Prime key-Attributes.

▼ Composite Key-Attributes

- It is a combination of two or more Non key-Attributes which is used to identify the record uniquely from the table is know as Composite Key-Attributes.

▼ Super Key-Attributes

- It is the set of all the key-Attributes.

▼ Foreign Key-Attribute

- It behaves as an Attribute of another entity to represent the relation.

23. Explain about Types of Functional Dependency ?

▼ Ans

- Consider the relation ‘R’ with two attributes ‘X’ and ‘Y’. in which attribute ‘X’ determines attribute ‘Y’. In other words ‘X’ is dependent on ‘Y’ there exist a Functional Dependency.

3 Types of Functional Dependency

▼ Total Functional Dependency

- If all the attributes in a relation are determined by a single attribute which is a key attribute, then there exist Total Functional Dependency.
- In Total Functional Dependency there are No anomaly and No redundancy.

▼ Partial Functional Dependency

- One of the attributes in composite key relation determines the another attributes separately, this is know as Partial Functional Dependency.
- In Partial Functional Dependency there are anomaly and redundancy.

▼ Transitive Functional Dependency

- If an attribute is determined by non-key attribute which intern is determined by key attribute, then there exist Transitive Functional Dependency.
- In Transitive Functional Dependency there are anomaly and redundancy.

27. Explain about Normalization ?

▼ Ans

- It is a process of decomposing the large table into smaller table to remove Anomaly and Redundancy.

Anomaly= means it is a side effect which are caused during the DML operation.

Redundancy= means these are the repeated or duplicate.

28. How do you create empty table with same structure as another table ?

▼ Ans

```
CREATE TABLE NEWTABLE LIKE OLDTABLE;
```

29. Create the following table as ‘ORDER’ by using below details. ProdID, OrderID, Qty_sold, Price, Order_dt.

▼ Ans

```
CREATE TABLE ORDERS
(
ProdID NUMBER(4) REFERENCES products (prodid),
OrderID NUMBER(4) PRIMARY KEY,
Qty_sold NUMBER(3) CHECK (Qty_sold > 0),
Price NUMBER(8,2),
Order_dt DATE
);
```

13. WAQTD all the employees who are getting some comm with their designation is neither manager nor analyst.

    ▼ Ans

```
SELECT *
FROM EMP
WHERE COMM IS NOT NULL AND JOB NOT IN ('MANAGER','ANALYST');
```

14. WAQTD all the details of employees only if an employee's manager's manager doesn't have a reporting manager and he belongs to deptno 10 or 20.

    ▼ Ans

```
SELECT *
FROM EMP E1,EMP E2,EMP E2
WHERE E1.MGR=E2.EMPNO AND E2.MGR=E3.EMPNO AND E3.MGR IS NULL AND E3.DEPTNO IN (10,20);

(or)

SELECT *
FROM EMP E1,EMP E2,EMP E3,DEPT D1,DEPT D2,DEPT D3
WHERE E1.MGR=E2.EMPNO AND E2.MGR=E3.EMPNO AND E1.DEPTNO=D1.DEPTNO
      AND E2.DEPTNO=D2.DEPTNO AND E3.DEPTNO=D3.DEPTNO AND E3.MGR IS NULL
      AND D3.DEPTNO IN (10,20);
```

15. WAQTD ename, empno and dname of the employee who are getting comm in dept 10 or 30 and empno are (7839,7902) and are working in loc new york.

    ▼ Ans

```
SELECT E1.ENAME,E1.EMPNO,D1.DNAME
FROM EMP E1,DEPT D1
WHERE E1.DEPTNO = D1.DEPTNO AND COMM IS NOT NULL AND
      E1.DEPTNO IN (10,30) AND EMPNO IN (7839,7902) AND LOC IN 'NEW YORK';
```

```
(OR)

SELECT EMP.ENAME,EMP.EMPNO,DEPT.DNAME
FROM EMP, DEPT
WHERE EMP.DEPTNO=DEPT.DEPTNO AND COMM IS NOT NULL AND EMP.DEPTNO IN (10,30) AND
      EMP.EMPNO IN (7839,7902) AND DEPT.LOC='NEW YORK';
```

16. List the details of the employees and hiredate who hired on a sunday in the month of may using single row function.

▼ Ans

```
SELECT *
FROM EMP
WHERE TO_CHAR(HIREDATE,'DY')='SUN' AND TO_CHAR(HIREDATE,'MON')='MAY';
```

17. WAQTD max salary and total salary of each department by considering all the employee whose job is not '_' character in it and total salary of department should be more than 5000 and should not be less then or equal to 9000.

▼ Ans

```
SELECT MAX(SAL),SUM(SAL)
FROM EMP
WHERE JOB LIKE '%_%'
GROUP BY DEPTNO
HAVING SUM(SAL) > 5000 AND SUM(SAL) >= 9000

(OR)

SELECT MAX(SAL),SAL*12
FROM EMP
WHERE JOB NOT LIKE '%_%' AND SAL*12>5000 AND SAL*12<=9000
GROUP BY SAL*12;
```

18. WAQTD EMPLOYEE'S MANAGER NAME, JOB, COMMISSION, DEPARTMENT NUMBER, EXISTING SALARY, NEW SALARY WITH THE REDUCTION OF 28% ONLY. IF DEPARTMENT NUMBER EITHER 10, 20, 30 AND MANAGER HIRED AFTER 1983.

▼ Ans

```
SELECT E2.ENAME,E2.JOB,E2.COMM,E2.DEPTNO,E2.SAL,E2.SAL-E2.SAL*0.28
FROM EMP E1,EMP E2
WHERE E1.MGR = E2.EMPNO AND E1.DEPTNO IN (10,20,30) AND E2.HIREDATE > '31-DEC-1983'
```

19. WAQTD EMP NAME AND HIREDATE, MANAGER NAME AND HIREDATE IF MANAGER WAS HIRED BEFORE EMPLOYEE.

▼ Ans

```
SELECT E1.ENAME,E1.HIREDATE,E2.ENAME,E1.HIREDATE
FROM EMP E1,EMP E2
WHERE E1.MGR = E2.EMPNO AND E2.HIREDATE < E1.HIREDATE
```

20. CREATE THE FOLLOWING TABLE AS 'PRODUCTS' BY USING BELOW DETAILS. ProdID, ProdName, Qty, Description.

▼ Ans

```
CREATE TABLE PRODUCTS
(
ProdID NUMBER(4) PRIMARY KEY,
ProdName VARCHAR(10) NOT NULL,
Qty NUMBER(3) CHECK (Qty 0),
Description VARCHAR(20)
);
```

21. WAQTD ENAME, MANAGER'S NAME AND MANAGER'S MANAGER NAME AND WITH THEIR LOC IF THE EMPLOYE HIRED BEFORE MARTIN AND MANAGER WORKING IN ACCOUTING OR SALES DEPT AND MANAGER'S MANAGER EARNING SAL MORE THAN SMITH.

▼ Ans

```
SELECT E1.ENAME,E2.ENAME,E3.ENAME,D1.LOC,D2.LOC,D3.LOC
FROM EMP E1,EMP E2,EMP E3,DEPT D1,DEFT D2,DEPT D3
WHERE E1.MGR=E2.EMPNO AND E2.MGR=E3.EMPNO AND E1.DEPTNO=D1.DEPTNO AND
      E2.DEFTNO=D2.DEPTNO AND E3.EMPNO=D3.DEPTNO AND
      E1.HIREDATE<(SELECT HIREDATE
                   FROM EMP
                   WHERE ENAME='MARTIN') AND D2.DNAME IN ('ACCOUNTING','SALES')
                   AND E3.SAL>(SELECT SAL
                               FROM EMP
                               WHERE ENAME='SMITH');
```

22. WAQTD DETAILS OF AN EMP WHOSE NAMES STARTS WITH CHARACTER 'A' AND 'S' USING SINGLE ROW FUNCTIONS.

▼ Ans

```
SELECT *
FROM EMP
WHERE SUBSTR(ENAME,1,1) IN ('A','S');
```

23. WRITE A QUERY TO DISPLAY ENAME, MGR, HIREDATE, SALARY, NEW SALARY WITH HIKE 25% FOR ALL THE EMPLOYEE. WHOSE NAME DOES NOT START WITH A AND SORT THE RESULT IN ASCENDING ORDER WITH NEW SALARY.

▼ Ans

```
SELECT ENAME,MGR,HIREDATE,SAL,SAL+SAL*0.25 NEWSAL
FROM EMP
WHERE ENAME NOT LIKE 'A%'
ORDER BY SAL+SAL*0.25 ASC;
```

24. WAQTD DNAME, LOC OF EMPLOYEES WHO IS GETTING 6th LEAST SAL.

▼ Ans

```
SELECT DNAME,LOC
FROM DEPT
WHERE DEPTHO IN (SELECT DEPTNO
                 FROM EMP
                 WHERE SAL IN (SELECT SAL
                               FROM (SELECT ROWNUM SLNO, SAL
                                     FROM (SELECT DISTINCT SAL
                                           FROM EMP
                                           ORDER BY SAL ASC))
                                     WHERE SLNO-6));
```

25. WAQTD DETAILS OF THE EMPLYOEES AND THEIR MANAGER'S JOB AND MANAGER'S MANAGER MGR ALONG WITH THEIR LOCATIONS IF EMPLOYEES GETTING MORE THEN 2700 AND MANAGER WORKING EITHER IN DEPTNO. 10,20 AND MANAGER'S MANAGER WORKING IN IN ACCCOUNTING AND RESEARCH.

▼ Ans

```
SELECT E1.*,E2.JOB,E3.MGR,D1.LOC,D2.LOC,D3.LOC
FROM EMP E1,EMP E2,EMP E3,DEPT D1,DEPT D2,DEPT D3
WHERE E1.MGR=E2.EMPNO AND E2.MGR=E3.EMPNO AND E1.DEPTNO=D1.DEPTNO AND
      E2.DEPTNO=D2.DEPTNO AND E3.DEPTNO=D3.DEPINO AND E1.SAL>2700 AND
      E2.DEPTNO IN (10,20) AND D3.DNAME IN ('ACCOUNTING','RESEARCH');
```

28. WAQTD ALL DETAILS OF EMP ALONG WITH ANNUAL SAL, IF THEY ARE WORKING IN DEPT 10 OR 20, HIRED IN THE MONTH OF SEPT AND EARNS MORE THAN 2000 AND WORKING AS PRESIDENT

▼ Ans

29. WAQTD SALARIES WHICH ARE REPEATED IN EMP TABLE

▼ Ans

30. WAQTD NAMES OF EMP GETTING SALARY MORE THAN SMITH IN NEWYORK

▼ Ans

31. WAQTD EMP NAME, MANAGERS NAME AND HIS MANAGERS NAME, ALONG WITH THEIR LOCATION IF EMP IS EARNING MORE THAN SMITH, MANAGER WORKING IN SAME DEPT AS THAN OF JONES AND MANAGERS MANAGER WORKING IN NEW YORK

▼ Ans

32. WAQTD NAMES OF EMP GETTING 25TH MAX SAL

▼ Ans

33. WAQTD NAMES OF EMPLOYEE HAVING EXACTLY 2 A's IN HIS NAME

▼ Ans

34. WAQT RENAME COLUMN FROM SID TO ID

▼ Ans

35. WAQTD DETAILS OF EMP'S HIRED IN THE YEAR 81,83,87

▼ Ans

36. WAQTD 3RD MINIMUM SALARY

▼ Ans

37. WAQTD ENAME, MANAGER'S NAME AND THEIR LOC IF EMP WORKING IN DEPT 10 OR 30 AND MANAGER EARNING MORE THAN FORD AND EMP WORKING IN LOC NEW YORK OR CHICAGO

▼ Ans

38. WAQTD THE ENAME'S WHICH ARE REPEATED IN EMP TABLE ?

▼ Ans

39. WAQTO NAMES OF EMPLOYEES HIRED AFTER 81 AND BEFORE 87 ?

▼ Ans

40. WAQTD NAME AND SAL OF THE EMPLOYEES EARNING MORE THAN KING IN THE DEPT ACCOUNTING ?

▼ Ans

41. WAQTD DETAILS OF EMP'S IF THEIR NAME STARTS WITH A' or 'S' USING SRF ?

▼ Ans

42. WAQTD all details of emp along with annual salary. if employee is working as president or analyst and hired in month of September ?

▼ Ans

43. WAQTD names of employee earning salary more then smith in same department as that of KING ?

▼ Ans

44. WAQTD employee names, managers names along with their location of emp is earning more then SCOTT and manager working in DALLAS ?

▼ Ans

45. WAQTD name of employee getting 26th max salary ?

▼ Ans

46. WAQTD details of employee whose name starts with VOWELS ?

▼ Ans

47. WAQTD details of employee hired in Leap year ?

▼ Ans

48. WAQTD bottom 5 more salaries ?

▼ Ans

49. WAQTD Ename, Sal, Deptno, Dname of the employee of their name having character ‘A’ in it ?

▼ Ans

50. WAQTD Dname who are reporting to KING ?

▼ Ans

51. WAQTD SMITH manager’s manager name ?

▼ Ans

52. WAQTD Department name of employee who are getting salary more then KILLER ?

▼ Ans

53. WAQTD number of employee’s hired after 82 but they are getting some salary as FORD’S salary ?

▼ Ans

54. WAQTD number of employee working in each department in which there are atmost 5 employee are working ?

▼ Ans

55. WAQTD ENAME, DNAME ONLY IF THE DNAME IS HAVING ATLEAST ONE ‘O’ OF THE DNAME AND THE EMPLOYEE IS HAVING ‘E’ AS THE SECOND LAST CHARACTER ?

▼ Ans

56. WRITE A QUERY TO DISPLAY ENAME, MGR, HIREDATE, SALARY, NEW SALARY WITH HIKE 25% FOR ALL THE EMPLOYEE WHOSE NAME DOES NOT START WITH A AND SORT THE RESULT IN ASCENDING ORDER WITH NEW SALARY.

▼ Ans

57. WAQTD ENAME,MANAGER'S NAME AND MANAGER'S MANAGER NAME AND WITH THEIR LOC IF THE EMPLOYE HIRED BEFORE MARTIN AND MANAGER WORKING IN ACCOUTING OR SALES DEPT AND MANAGER'S MANAGER EARNING SAL MORE THAN SMITH.

▼ Ans

58. WAQTD DNAME AND EMPNO FOR ALL THE EMPLOYEES WHO'S EMPNO ARE (7839,7902) AND ARE WORKING IN LOC NEW YORK.

▼ Ans

59. DISPLAY ALL THE EMPLOYEES WHOSE NAME START WITH 'S' AND HAVING SALARY
    MORE THAN 'ALLEN' AND LESS THAN FORD.

▼ Ans

60. WAQTD THE DNAME OF THE EMPLOYEE WHO IS GETTING 7TH MINIMUM SALARY ?

▼ Ans

61. WAQTD ENAME, DNAME ONLY IF THE DNAME IS HAVING ATLEAST ONE ‘O’ OF THE DNAME AND THE EMPLOYEE IS HAVING ‘E’ AS THE SECOND LAST CHARACTER ?

▼ Ans

62. DISPLAY ENAME, DNAME OF ALL THE EMPLOYEES WHOSE SALARY LESS THAN AVG SAL OF DEPT 30.

▼ Ans

63. WRITE A QUERY TO DISPLAY EMPLOYEE NAME, JOB, COMMISSION, DEPARTMENT NUMBER, EXISTING SALARY, NEW SALARY WITH THE REDUCTION OF 35% ONLY
    IF JOB NOT EQUAL TO CLERK AND DEPARTMENT NUMBER EITHER 10, 20, 30 AND HIREDDATE GREATER THAN 1983.

▼ Ans

64. WRITE A QUERY TO DISPLAY EMPLOYEE NAME, JOB, DNAME, LOCATION OF ALL EMPLOYEES WHO ARE WORKING AS ACTUAL MANAGERS AND WORKS AT CHICAGO.

▼ Ans

65. LIST THE DEPARTMENT NAMES IN WHICH THE EMPLOYEES ARE HIRED BETWEEN 1ST OF JAN 1981 AND 31ST DEC 1982 WITH SALARY MORE THAN 1800.

▼ Ans

66. WAQ TO CONSTRUCT A TABLE(STUDENT) THAT CAN ACCEPT
    A. SID
    B. SNAME
    C. SBRANCH
    D. SPERCENTAGE

▼ Ans

67. WAQTD EMPLOYEE NAME AND MANAGERS COMM IF EMPLOYEE WORKS AS SALESMAN AND MANAGERS WORKS IN DEPTNO 30.

▼ Ans

68. DISPLAY ALL THE EMPLOYEES WHOSE NAME START WITH 'S' AND HAVING SALARY
    MORE THAN 'ALLEN' AND LESS THAN FORD.

▼ Ans

69. DISPLAY EMPNO, ENAME, JOB, WHOSE JOB HAS 'E' IN IT AND DISPLAY EMPNO IN DESCENDING ORDER.

▼ Ans

70. WAQTD 4th max salary from emp table?

▼ Ans

71. WAQTD dname of an employee getting 2nd max salary ?

▼ Ans

72. WAQTD Ename start with VOWELS (A.E.I.O.U) ?

▼ Ans

73. WAQTD all the details along with annual salary of employee who are working in location CHICAGO or NEW YORK ?

▼ Ans

74. Create a table with name “product” having columns like (PID, Pname, Price, Discount)and insert any 2 records using any of the syntex ?

▼ Ans

75. WAQTD max salary of an emp working in each dept having at least 2 employees in each dept ?

▼ Ans

76. WAQTD Ename, manager Ename, Emp dname and managers dname where emp working in deptno 10 and manager working in location CHICAGO ?

▼ Ans

77. WAQTD Ename and dname of all the employees ?

▼ Ans