1. Distinguish between Delete and Truncate statement.

**DELETE and TRUNCATE are two terms used in Structured Query Language (SQL) to removes the record or data from a table. Although the end result of both commands is the same but there are also some differences between these two that are important to be understand. The main difference between DELETE and TRUNCATE is that DELTE is a Data Manipulation Language (DML) command while TRUNCATE is a Data Definition Language (DDL) command.**

1. What is single row sub query.

**A single-row subquery is one that returns one row from the inner SELECT statement. This type of subquery uses a single-row operator.**

1. What is single row function.

**• Character functions**

**• Number functions**

**• Date functions**

**• Conversion functions**

**• General functions**

1. Multiple row sub query

**Subqueries that return more than one row are called multiple-row subqueries. You use a multiple-row operator, instead of a single-row operator, with a multiple-row subquery. The multiple-row operator expects one or more values**.

1. **Multiple row sub query**

ANS: Multiple-Row Sub queries

Sub queries that return more than one row are called multiple-row sub queries. You use a multiple-row operator, instead of a single-row operator, with a multiple-row sub query. The multiple-row operator expects one or more values.

Use multiple-row comparison operators

IN Equal to any member in the list

ANY Must be preceded by =, !=, >, <, <=, >=. Compares a value to each value in a list or returned by a query. Evaluates to FALSE if the query returns no rows. ANY Meaning

ALL Must be preceded by =, !=, >, <, <=, >=. Compares a value to every value in a list or returned by a query. Evaluates to TRUE if the query returns no rows

1. **Multiple row Function**

ANS: Multiple-Row Functions

Functions can manipulate groups of rows to give one result per group of rows. These functions are also known as group functions (covered in the lesson titled “Reporting Aggregated Data Using the Group Functions”).

1. **What is Character function, number function, date function**

ANS:

• Character functions: Accept character input and can return both character and number values

• Number functions: Accept numeric input and return numeric values

• Date functions: Operate on values of the DATE data type (All date functions return a value of the DATE data type except the MONTHS\_BETWEEN function, which returns a number.)

**7. Define Null value, NVL function, NULLIF function, LIKE operator, IN operator**

**ANS:**

**NULL Value :-** Null is a value that is unavailable, unassigned, unknown, or inapplicable.

(Null is not the same as zero or a blank space.)

**NVL function:-** Converts a null value to an actual value

**NVL2 function:-** If expr1 is not null, returns expr2. If expr1 is null, returns expr3.

**NULLIF function:**-Compares two expressions and returns null if they are equal; returns

the first expression if they are not equal

**LIKE operator:-** use LIKE operator to perform wildcard search of valid search string values.

**IN operator:-** ( set operator ) USE the In operator to test for values in list .

**8. What is CASE function, DECODE function ?**

**ANS:** CASE - CASE expressions allow you to use the IF-THAN-ELSE logic in SQL statements without having to invite process.

DECODE –The DECODE function decode expression after comparing it each search value.

**9. What are group functions ? Types of group Function**

**ANS:** Group functions operate on set of rows to give one result per group.

* **Types of group functions :**

*SUM, AVG , MAX , MIN, COUNT, STDDEV ,VARIANCE*

What is natural joins

A NATURAL JOIN is a JOIN operation that creates an implicit join clause for you based on the common columns in the two tables being joined. Common columns are columns that have the same name in both tables. A NATURAL JOIN can be an INNER join, a LEFT OUTER join, or a RIGHT OUTER join.

What is self joins

A self-join, also known as an inner join, is a structured query language (SQL) statement where a queried table is joined to itself. The self-join statement is necessary when two sets of data, within the same table, are compared.

What is Group Function? Write down the types of Group Function?

Group functions: Group functions operate on sets of rows to give one result per group.

Types of Group Functions:

\*AVG \*COUNT \*MAX \*MIN \*STDDEV \*SUM \*VARIANCE

1. What is nonequjoins?

Ans . A non-equijoin is a join condition containing something other than an equality operator.Other conditions can be used, but BETWEEN is the simplest.

1. What is Cartesian product?

Ans.

* 1. A Cartesian product is formed when:
     1. A join condition is omitted
     2. A join condition is invalid
     3. All rows in the first table are joined to all rows in the second table.
  2. To avoid a Cartesian product, always include a valid join condition.

1. What is Subquery?

Ans.

* A subquery is a SELECT statement that is embedded in a clause of another SELECT statement
* The subquery (inner query) executes once before the main query (outer query).
* The result of the subquery is used by the main query.

To avoid a Cartesian product, always include a valid join condition.

**Q. 16 Types of Subqueries**

**Single-row subsqueries:**  Queries that return only one row from the inner SELECT statement.

**Multi-row subqueries:** Queries that returne more than one row from the inner SELECT statement.

**Q. 17 What are the Guidelines for Using Subqueries?**

• Enclose subqueries in parentheses.

• Place subqueries on the right side of the comparison condition.

• The ORDER BY clause in the subquery is not needed unless you are performing Top-N analysis.

• Use single-row operators with single-row subqueries, and use multiple-row operators with multiple-row subqueries.

**Q. 18 Single-row subqueries**

**Single-row subqueries:** Queries that return only one row from the inner SELECT statement

1. single row operator

=Equal to

>Greater than

>=Greater than or equal to

<Less than

<=Less than or equal to

<>Not equal to

1. multiple row sub query

Sub queries that return more than one row are called multiple-row sub queries. You use a multiple-row operator, instead of a single-row operator, with a multiple-row sub query.

1. multiple row operator

* Return more than one row

• Use multiple-row comparison operators

* **IN**
* **ANY** : • <ANY means less than the maximum.

• >ANY means more than the minimum.

• =ANY is equivalent to IN

* **ALL**.

1. What is data definition language

A data definition language or data description language is a syntax similar to a computer programming language for defining data structures, especially database schemas.

2. What is data manipulation language?

A data manipulation language is a computer programming language used for adding, deleting, and modifying data in a database.

3. A data manipulation language is a computer programming language used for adding, deleting, and modifying data in a database.

A **data manipulation language** (**DML) is a computer programming language used for adding** (inserting), **deleting, and modifying** (updating) **data in a database**.

25. What is database transactions-Start and End,,,?

Ans: A transaction begins when the first DML statement is encountered and ends when one of the

following occurs:

• A COMMIT or ROLLBACK statement is issued.

• A DDL statement, such as CREATE, is issued.

• A DCL statement is issued.

• The user exits SQL Developer or SQL\*Plus.

• A machine fails or the system crashes.

26. What is Commit and Rollback,,,?

Ans: **Commit:** Commit statement to end our current transaction and make permanent all changes performed in the transaction.

**Rollback:**  A rollback is the operation of restoring a database to a previous state by canceling a specific transaction or transaction set.

27. What is database object ,,,?

Ans: 01: A database object is any defined object in a database that is used to store or reference data.

Ans 02: The Oracle Database can contain multiple data structures. Each structure should be outlined in the database design so that it can be created during the build stage of database development.

• **Table:** Stores data

• **View:** Subset of data from one or more tables

• **Sequence:** Generates numeric values

• **Index:** Improves the performance of some queries

• **Synonym:** Gives alternative name to an object

# What is Create table?

Creating a basic table involves naming the table and defining its columns and each column's data type.The SQL CREATE TABLE statement is used to create a new table.

# Write down the guidelines for creating a table by using a sub query.

a. Match the number of specified columns to the number of sub query columns.

b. Define columns with column names and default values.

# What are the uses of ALTER TABLE statement?

Use the ALTER TABLE statement to:

\*Add a new column \*Modify an existing column \*Define a default value for the new column

\*Drop a column \*Rename a column \*Change table to read-only status

1. Dropping table guide line

Guidelines are:

• All the data is deleted from the table.

• Any views and synonyms remain, but are invalid.

• Any pending transactions are committed.

• Only the creator of the table or a user with the DROP ANY TABLE privilege can remove a table.

1. Constraint guide line

Guidelines are:

* You can name a constraint, or the Oracle server generates a name by using the SYS\_Cn format.
* Create a constraint at either of the following times:

\*At the same time as the creation of the table

\*After the creation of the table

* Define a constraint at the column or table level.
* View a constraint in the data dictionary.

1. What Is a View?

You can present logical subsets or combinations of data by creating views of tables. A view is a logical table based on a table or another view. A view contains no data of its own, but is like a window through which data from tables can be viewed or changed. The tables on which a view is based are called base tables. The view is stored as a SELECT statement in the data dictionary.

34**:-Types of view ?**

Ans:Two types of view.

1, Simple View

2, Complex View

35**:-Simple view and Complex view ?**

Ans: A simple view is one that:

* Derives data from only one table
* Contains no functions or groups of data
* Can perform DML operations through the view

A complex view is one that:

* Derives data from many tables
* Contains functions or groups of data
* Does not always allow DML operations through the view.
* What is modifying view

**36:-What is modifying view ?**

Ans: With the OR REPLACE option, a view can be created even if one exists with this name already, thus replacing the old version of the view for its owner.

37. What is Sequence?

Ans: A sequence is a user-created database object that can be shared by multiple users to generate integers.

Ans2: In Oracle, we can create an autonumber field by using sequences. A sequence is an object in Oracle that is used to generate a number sequence. This can be useful when we need to create a unique number to act as a primary key.

38. Using Sequence?

Ans: Suppose that you now want to hire employees to staff the new department. The INSERT statement to

be executed for all new employees can include the following code:

INSERT INTO employees (employee\_id, department\_id, ...)

VALUES (employees\_seq.NEXTVAL, dept\_deptid\_seq .CURRVAL, ...);

39. Guidelines for Sequence?

Ans: Guidelines for Modifying a Sequence:

• You must be the owner or have the ALTER privilege for the sequence.

• Only future sequence numbers are affected.

• The sequence must be dropped and re-created to restart

the sequence at a different number.

• Some validation is performed.

• To remove a sequence, use the DROP statement:

**40. What is Index?**

**Ans:** Indexes are database objects that you can create to improve the performance of some queries.

Indexes can also be created automatically by the server when you create a primary key or a unique constraint.

**41. What is synonyms?**

**Ans:** Synonyms are database objects that enable you to call a table by another name. you can create synonyms to give an alternative name to a table.

**42. What is System privileges, Object Privileges?**

**Ans:** **System privilege**

* More than 100 privileges are available.
* The database administrator has high-level system privileges for tasks such as:
* Creating new users
* Removing users
* Removing tables
* Backing up tables

**CREATE SESSION**

* Create table
* Create sequence
* Create view
* Create procedure

**Object privileges**

An object privilege is a privilege or right to perform a particular action on a specific table, view, sequence, or procedure.