Complete Oracle Descriptive 2

1. Write the naming rules of table name and column name.
Ans: Table names and column names:
i) Must begin with a letter.
ii) Must be 1-30 characters long.
iii) Must contain only A-Z, a-z, 0-9, _, $ and #
iv) Must not duplicate the name of another object owned by the same user.
v) Must not be an Oracle server reserved word.
vi) Use descriptive names for tables and other database objects.
2. What are date time data types?
Ans: Date time data types are current_date, current_timestamp and localtimestamp.
3. How can we add a column to an existing table? What is the position for the new column?
Ans: alter table tablename add columnname dataype;
The column will be added after the right column of every columns of the existing table.
4. Why we set unused for a column? How can we set?
Ans: The SET UNUSED option marks one or more columns as unused so that they can be dropped when the demand on system resources is lower.
alter table tablename set unused(columnname);
5. What is TRUNCATING a table? Write difference between TRUNCATE and DELETE table?
Ans: Truncation a table means to delete all data of a table without deleting the structure.
Difference between truncate and delete:

Truncate	Delete
1. Statement type DDL 1	1. Statement type DML
2. Cannot be rolled back.	2. Can be rolled back.
3. Truncate recovers space.	3. Delete does not recover space.

6. What are constraints?
Ans: Constraint is something like data validation which obliged user to insert data on the specific field.
7. Write the guide line of the constraints?

Ans: i) You can name a constraint, Otherwise the Oracle server generates a name by using the SYS_Cn format.
ii) Create a constraint at either of the following times:
a) At the same time as the table is created
b) After the table has been created
8. How can we define constraint in the table?
Ans: constraint constraintname pk primary key(field);
9. How can we enable and disable a constraint?
Ans: Disabling:
alter table tablename disable constraint constraintname;
Enabling:
alter table tablename enable constraint constraintname;
10. What is CASCADING constraint?
Ans: The cascade constraints clause is used along with the drop column clause. It drops all relational integrity constraint that refers to the primary and unique keys defined on the dropped columns.
11. What is view and why we use view?
Ans: View is a logical table based on one or more tables or another view.
Use of View:
i) Views restrict access to the data because the view can display selected columns from the table.
ii) Views can be used to make simple queries to retrieve the result of complicated queries.
12. Write the guidelines to create a view?
Ans: There are two kinds of views. They are: i) Simple view ii) complex view.
13. What is simple view and what is complex view?
Ans: Simple View: When a view created on a single table then the view is called simple view.
Complex View: When a view is create on several tables then the view is called complex view.
14. Write the rules of performing DML operations on a view?
Ans: We cannot remove a row, modify data or add data through a view if it contains- i) Group Function ii) A group by clause iii) The Distinct Keyword.
15. Why we use WITH CHECK OPTION clause to create a view?
Ans: WITH CHECK OPTION to indicate that, if the subquery is used in placed of a table in an insert, update or delete statement, no changes that are not included in the subquery are permitted to that.

16. Why we use WITH READ ONLY clause to create a view?
Ans: We use constraint WITH READ ONLY toensure that no DML operation can be performed.
17. What is inline view?
Ans: A subquery in the from clause of a select statement is called inline view.
Chapter 12-Other Database Objects
15. What is sequence? Write some guidelines for modifying a sequence?
Ans: A sequence is a user created database object that can be shared by multiple users to generate integers.
Guidelines for modifying a sequence:
i) You must be the owner or have the alter privilege for the sequence.
ii) Only future sequence numbers are affected.
iii) To remove a sequence, use the DROP statement.19. Write the syntax of creating a sequence.
Ans: create sequence sequencename increment by 1 start with 1;
20. What is an index? When to create an index and when not? How many kinds of index?
Ans: An index is a schema object that can speed up the retrieval of rows by using a pointer and can be created explicitly or automatically. i) Index may be created when –
-A column contains a wide range of values or null values.
- One or more columns are frequently used together in a WHERE clause or a join condition.
There are two kinds of index. They are: Unique Index and Non Unique Index
21. What is synonym and what is the purpose to creating synonyms?
Ans: A synonym is an alternative name for objects such as tables, views, sequences, stored procedures, and other database objects.
22. What is ROLE? Why we create ROLE?
Ans: Ans: A role is a named group of related privileges that can be granted to the user. This method makes it easier to revoke and maintain privileges.
23. What is the purpose of using ROLLUP and CUBE operators with GROUP BY clause? Write the example of GROUP BY clause with ROLLUP and CUBE operator.
Ans: i) Rollup or cube with group by clause is used to produce superaggregate rows by cross-referencing columns.
ii) Rollup operation is used to produce cumulative aggregates such sub totals.
Example of ROLLUP:

```
Select department_id,job_id,sum(salary)
From employees where department_id<60
```

```
Group by rollup(department_id,job_id);
Example of cube:
Select department_id,job_id,sum(salary)
from employees
where department_id<60
group by cube(department_id,job_id);
```

24. What is meant by concatenated grouping?

Ans: Concatenated grouping offers a concise way to generate useful combinations of groupings.

```
select department_id, job_id, manager_id, sum(salary)
from employees
group by department_id,
rollup(job_id),
cube(manager_id);
```

25. What is sub-query? What is multiple-column sub-query?

Ans: A subquery is a select statement that is embedded in a clause of another select statement.

Subquery that returns more than one row are called multiple row subquery.

26. What is the purpose of using EXISTS operator with subqury?

Ans: EXISTS is a Comparison operator, which is used to check and match records between two queries on correlation basis and returns a BOOLEAN output (TRUE or FALSE).

```
SELECT EMPNO, ENAME, DEPARTMENT_ID
FROM EMPLOYEE E
WHERE EXISTS (SELECT 1 FROM EMP_CLUB WHERE EMPNO = E.EMPNO)
```

27. What is hierarchical query? Why we use it? Give an example of hierarchical query.

Ans: Hierarchical query is such a query which is use to retrieve rows according to hierarchy of the table.

If a table contains hierarchical data, then you can select rows in a hierarchical order using the hierarchical query clause.

```
select employee_id, last_name, job_id, manager_id, from employees
start with employee_id=101
connect by prior manager_id=employee_id;
```

28. Write about START WITH, CONNECT PRIOR clause. How can we prune the tree?

Ans: START WITH specifies the root row(s) of the hierarchy.

CONNECT BY specifies the relationship between parent rows and child rows of the hierarchy.

PRIOR is a unary operator and has the same precedence as the unary + and -

arithmetic operators. It evaluates the immediately following expression for the parent row of the current row in a hierarchical query.

29. What is Top-N-Analysis? Write the example of Top-N-Analysis.

Ans: Top-N queries provide a method for limiting the number of rows returned from ordered sets of data.

```
select ROWNUM as RANK, ename,sal from(select ename,sal
from emp ORDER BY sal DESC) WHERE ROWNUM<=3;
```

30. What are the system securities and object securities?

Ans: System security ensures that the system's resources are used properly. Access controls can restrict who is permitted access to resources on the system. Object security provides access to dimensional objects. You must set object security before other users can access them. Object security is implemented using SQL GRANT and REVOKE.

31. Write about database link.

Ans: A database link is a connection between two physical database servers that allows a client to access them as one logical database.

32.Write about different types of system privileges and object privileges

Ans: System privileges are privileges given to users to allow them to perform certain functions that deal with managing the database and the server .

Object privileges are privileges given to users so that they can perform certain actions upon certain database objects – where database objects are things like tables, stored procedures, indexes, etc.

33. What is pairwise and non pairwse comparison operator?

Ans: Pairwise Comparison Operator: Pairwise comparison generally refers to any process of comparing entities in pairs to judge which of each entity is preferred, or has a greater amount of some quantitative property.

Nonpairwise Comparison Operator: Nonpairwise Using non pairwise comparison you compare a single value (manager_id) extracted from the current record with a set of single values extracted by the subquery.

34. What are Privileges?

Privileges are the right to execute particular SQL statements. The database administrator (DBA) is a high-level user with the ability to create users and grant users access to the database and its objects.

35. What is schema?

A schema is a collection of objects such as tables, views, and sequences. The schema is owned by a database user and has the same name as that user.

36. What is the function of REVOKE statement?
REVOKE statement, the privileges that you specify are revoked from the users you name and from any other users to whom those privileges were granted by the revoked user.
37. What is the function of Explicit Defaults in insert and update?
The DEFAULT keyword can be used in INSERT and UPDATE statements to identify a default column value. If no default value exists, a null value is used.
38. What are the different types of multitable INSERT statements?
• Unconditional INSERT
• Conditional ALL INSERT
• Conditional FIRST INSERT
• Pivoting INSERT
39. What is Pivoting INSERT?
Pivoting is an operation in which we must build a transformation such that each record from any input stream, such as a nonrelational database table, must be converted into multiple records for more relational database table environment.
40. What is the function of MERGE Statements?
Using this statement, we can update, insert, or delete a row conditionally into a table, thus avoiding multiple DML statements. The decision whether to update, insert, or delete into the target table is based on a condition in the ON clause.
41. What is scalar Subqueries in SQL?
A subquery that returns exactly one column value from one row is also referred to as a scalar subquery.
42. What is Correlated Subqueries?
The Oracle server performs a correlated subquery when the subquery references a column from a table referred to in the parent statement. A correlated subquery is evaluated once for each row processed by the parent statement. The parent statement can be a SELECT, UPDATE, or DELETE statement.
43. Write down the advantages of commit and rollback statements.
Ans: With commit and rollback statements ,you can:
i) Ensure data processing.
ii) Preview data changes before making changes permanent.
44. What is datadicationary?
Ans: A data dictionary defines the structure of the database itself (not that of the data held in the database) and is used in control and maintenance of large databases.

45. Write the difference between Schema and datadicationary?
Ans: Schema is the overall structure of the database whereas datadicationary hold only the all the information of the schema.
46. What is advantage of Merge:
i) It provides ability to conditionally update or insert data into a database table.
ii) It performs an update if the row exists and an insert if it is in a new row: -avoids separate updates , increase performance and ease of use, is useful in data warehousing application.
47. What is group function? Write some guidelines for a group function.
Ans: The function operates on sets of rows to give one result per group is called group function.
Guidelines:
i) The datatypes for the arguments can be char, varchar2, number or date.
ii) All group function except count(*) ignore null values.
48. 36. Why do we use grouping function?
Ans: i) The grouping function is used either the cube or rollup operator.
ii) The group function is used to find the groups forming the subtotal in a row.
iii) The groping function is used to diffentiate stored null values from null values by rollup or cube.