**1. What is a CTE in SQL?**

a) Complex Table Extraction  
b) Common Table Expression  
c) Common Table Evaluation  
d) Complex Table Expression

**Answer**: b) Common Table Expression

**2. Which SQL clause is used to restrict rows returned by a query based on a specific condition?**

a) HAVING  
b) WHERE  
c) GROUP BY  
d) ORDER BY

**Answer**: b) WHERE

**3. Which SQL function is used to rank rows without gaps?**

a) RANK()  
b) DENSE\_RANK()  
c) ROW\_NUMBER()  
d) NTILE()

**Answer**: b) DENSE\_RANK()

**4. What does the PARTITION BY clause do in SQL?**

a) Divides the result set into partitions to apply aggregate functions.  
b) Groups rows together.  
c) Filters rows based on conditions.  
d) Combines multiple tables.

**Answer**: a) Divides the result set into partitions to apply aggregate functions.

**5. Which SQL statement is used to create an index?**

a) CREATE TABLE  
b) CREATE INDEX  
c) CREATE VIEW  
d) CREATE TRIGGER

**Answer**: b) CREATE INDEX

**6. What is the purpose of the COALESCE function in SQL?**

a) Returns the sum of non-null values.  
b) Combines two or more tables.  
c) Returns the first non-null value in the list.  
d) Finds the average value.

**Answer**: c) Returns the first non-null value in the list.

**7. What does the following query return?**

SELECT COUNT(\*), COUNT(column\_name) FROM table\_name;

a) Total rows and total non-null rows in column\_name.  
b) Total rows and null rows in column\_name.  
c) Non-null rows in both cases.  
d) Null rows in both cases.

**Answer**: a) Total rows and total non-null rows in column\_name.

**8. Which SQL clause filters groups of rows?**

a) WHERE  
b) HAVING  
c) ORDER BY  
d) LIMIT

**Answer**: b) HAVING

**9. What is the default sorting order of the ORDER BY clause?**

a) DESC  
b) ASC  
c) None  
d) Random

**Answer**: b) ASC

**10. What does the ROW\_NUMBER() function do?**

a) Assigns a unique number to each row.  
b) Groups rows together.  
c) Counts rows in a table.  
d) Removes duplicate rows.

**Answer**: a) Assigns a unique number to each row.

**11. What type of join includes all records from the left table and only matched records from the right table?**

a) INNER JOIN  
b) LEFT JOIN  
c) FULL JOIN  
d) RIGHT JOIN

**Answer**: b) LEFT JOIN

**12. Which SQL keyword is used to combine the results of two queries into a single result set?**

a) UNION  
b) INTERSECT  
c) EXCEPT  
d) JOIN

**Answer**: a) UNION

**13. What does the OVER() clause do in SQL?**

a) Modifies aggregate functions to work on a subset of rows.  
b) Combines two result sets.  
c) Filters rows based on conditions.  
d) Performs a full table scan.

**Answer**: a) Modifies aggregate functions to work on a subset of rows.

**14. Which SQL constraint ensures unique values in a column?**

a) PRIMARY KEY  
b) FOREIGN KEY  
c) UNIQUE  
d) CHECK

**Answer**: c) UNIQUE

**15. What is the purpose of the EXISTS clause?**

a) Checks for duplicate rows.  
b) Tests for the existence of rows in a subquery.  
c) Removes null values.  
d) Combines multiple tables.

**Answer**: b) Tests for the existence of rows in a subquery.

**16. What is the difference between DELETE and TRUNCATE?**

a) DELETE removes specific rows, TRUNCATE removes all rows.  
b) TRUNCATE is slower than DELETE.  
c) TRUNCATE logs each row deletion.  
d) DELETE cannot use conditions.

**Answer**: a) DELETE removes specific rows, TRUNCATE removes all rows.

**17. Which SQL statement can be used to modify existing data in a table?**

a) SELECT  
b) UPDATE  
c) DELETE  
d) INSERT

**Answer**: b) UPDATE

**18. What does the NVL() function do in Oracle SQL?**

a) Converts null values to a specified value.  
b) Finds the largest number in a column.  
c) Sorts data in ascending order.  
d) Counts the total rows in a table.

**Answer**: a) Converts null values to a specified value.

**19. What is a materialized view in SQL?**

a) A temporary table.  
b) A physical copy of the data fetched by a query.  
c) A type of primary key.  
d) A logical representation of a table.

**Answer**: b) A physical copy of the data fetched by a query.

**20. What is the purpose of the MERGE statement in SQL?**

a) Combine multiple tables into one.  
b) Perform insert, update, or delete operations in a single statement.  
c) Compare two columns for equality.  
d) Remove duplicate rows.

**Answer**: b) Perform insert, update, or delete operations in a single statement.

**21. How can you create a self-referencing foreign key?**

a) By setting the foreign key to reference another table.  
b) By referencing the same table's primary key.  
c) By using a UNIQUE constraint.  
d) By creating a trigger.

**Answer**: b) By referencing the same table's primary key.

**22. Which function calculates the difference between two dates in SQL?**

a) DATEDIFF()  
b) DATEADD()  
c) DATEPART()  
d) GETDATE()

**Answer**: a) DATEDIFF()

**23. What does the WITH ROLLUP modifier do in SQL?**

a) Calculates subtotals and grand totals.  
b) Filters rows based on conditions.  
c) Creates temporary tables.  
d) Aggregates non-null values only.

**Answer**: a) Calculates subtotals and grand totals.

**24. Which isolation level prevents dirty reads in SQL?**

a) READ UNCOMMITTED  
b) READ COMMITTED  
c) REPEATABLE READ  
d) SERIALIZABLE

**Answer**: b) READ COMMITTED

**25. How is a CROSS JOIN different from other joins?**

a) Returns only matching rows.  
b) Combines all rows from both tables without a condition.  
c) Requires a WHERE clause.  
d) Uses a primary key.

**Answer**: b) Combines all rows from both tables without a condition.