

1. Which of the following is a Relational Database Management System (RDBMS)?

- a) MySQL
- b) Oracle
- c) Microsoft Access
- d) All of the above**

2. What is the most common SQL statement used to retrieve data from a database?

- a) CREATE
- b) INSERT
- c) SELECT**
- d) UPDATE

3. What data type in SQL is best suited for storing dates?

- a) VARCHAR
- b) INT
- c) DATE**
- d) FLOAT

4. Which clause is used to specify a condition in a SELECT statement?

- a) FROM
- b) WHERE**
- c) ORDER BY
- d) GROUP BY

5. What does the JOIN operation do in SQL?

- a) Creates a new table
- b) Combines data from two or more tables**
- c) Deletes data from a table
- d) Updates data in a table

6. Which SQL keyword is used to combine the results of two or more SELECT statements?

- a) JOIN
- b) UNION**
- c) Merge
- d) Combine

7. Which SQL command is used to permanently delete a table?

- a) ALTER TABLE
- b) DROP TABLE**
- c) DELETE
- d) UPDATE

8. What function can be used to count the number of rows in a table?

- a) SUM
- b) COUNT**
- c) AVG
- d) MAX

9. The WHERE clause filters data based on a specific condition. What operator is used for comparisons?

- a) =**
- b) +
- c) *
- d) ,

10. What does the DISTINCT keyword do in a SELECT statement?

- a) Sorts the results
- b) Returns only unique values**
- c) Limits the number of rows returned
- d) Groups the results

11. What is the difference between an INNER JOIN and an OUTER JOIN?

- a) INNER JOIN returns all matching rows, while OUTER JOIN returns all rows from one table.**
- b) There is no difference.
- c) INNER JOIN is used for dates, while OUTER JOIN is used for text data.
- d) OUTER JOIN is faster than INNER JOIN.

12. What is the purpose of a primary key in a table?

- a) To define the data type of a column
- b) To uniquely identify each row in a table**
- c) To define a relationship between tables
- d) To store descriptive information about the table

13. What does the ORDER BY clause do in a SELECT statement?

- a) Filters data based on a condition
- b) Sorts the results**
- c) Limits the number of rows returned
- d) Groups the results

14. What is the difference between UPDATE and DELETE statements?

- a) **UPDATE modifies existing data, while DELETE removes data entirely**
- b) There is no difference.
- c) UPDATE is used for numeric data, while DELETE is used for text data.
- d) DELETE is faster than UPDATE.

15. What is a subquery in SQL?

- a) **A query nested within another**
- b) A special type of join
- c) A function used for string manipulation
- d) A way to define user permissions

16. What is the syntax for creating a new table in SQL?

- a) **CREATE TABLE table_name (column1 datatype, column2 datatype, ...);**
- b) INSERT INTO table_name (column1, column2, ...) VALUES (...);
- c) SELECT * FROM table_name;
- d) DROP TABLE table_name;

17. Which of the following is a single-row function?

- a) Concat
- b) lower
- c) upper
- d) **All of the above**

18. What does the LIKE operator do in a WHERE clause?

- a) Performs an exact comparison
- b) **Performs a pattern matching search**
- c) Sorts the results
- d) Groups the results

19. What is the function of the GROUP BY clause?

- a) Filters data based on a condition
- b) Sorts the results
- c) **Groups data based on one or more columns**
- d) Limits the number of rows returned

20. What is an alias in SQL?

- a) A reserved keyword
- b) **A temporary name assigned to a table or column**
- c) A data type
- d) A user-defined function

21. What is the purpose of a foreign key in a database?

- a) To define the data type of a column
- b) To create a relationship between tables, enforcing referential integrity**
- c) To uniquely identify each row in a table
- d) To store descriptive information about the table

22. What does the HAVING clause do in a SELECT statement used with GROUP BY?

- a) Filters groups based on a condition applied to aggregate functions**
- b) Filters individual rows based on a condition
- c) Sorts the grouped results
- d) Limits the number of groups returned

23. What is the difference between UNION and UNION ALL operators in SQL?

- a) UNION removes duplicates, while UNION ALL keeps all rows**
- b) There is no difference.
- c) UNION is used for numeric data, while UNION ALL is used for text data.
- d) UNION ALL is faster than UNION.

24. The symbol || represent for which of the following?

- a) concat operator
- b) concatenation operator**
- c) alias
- d) none of the above

25. Which one is faster in terms of performance: UNION or UNION ALL?

- a) UNION
- b) UNION ALL**
- c) Both have same performance
- d) None

26. What is the difference between schema and table in a database?

- a) Schema is a blueprint for the database structure, defining tables and their relationships. Tables store the actual data.**
- b) There is no difference.
- c) Schema is used for numeric data, while tables are used for text data.
- d) Tables are faster to access than schemas.

27. select substr('helloworld', -1, instr('helloworld', 'l', 3, 2)) from dual;

- a) hell**
- b) d
- c) orld
- d) error

28. Which of the following query finds the total rating of the sailors who have reserved boat 103?

- a) SELECT SUM(s.rating) FROM sailors s, reserves r AND r.bid = 103;
- b) SELECT s.rating FROM sailors s, reserves r WHERE s.sid = r.sid AND r.bid = 103;
- c) SELECT COUNT(s.rating) FROM sailors s, reserves r WHERE s.sid = r.sid AND r.bid = 103;
- d) SELECT SUM(s.rating) FROM sailors s, reserves r WHERE s.sid = r.sid AND r.bid = 103;**

29. Select the correct statement.?

- a) DDL consist of 4 commands
- b) DCL consist of 2 commands**
- c) TCL consist of 5 commands
- d) DML consist of 3 commands

30. Which of the following is TRUE about TCL?

- a. Transactions can be saved to the database and rolled back with the help of TCL commands in SQL.**
- b. There will be certain privileges that each user has; consequently, the data can be accessed by them using TCL.
- c. Our data is stored in a table that is described by the schema, thus TCL commands deal with the schema.
- d. SQL TCL commands can be used to perform any kind of retrieval or manipulation of the data present in SQL tables

32. What does the COMMIT statement do in a transaction?

- a) Starts a new transaction
- b) Rolls back changes made within a transaction
- c) Saves the changes made within a transaction**
- d) Grants access permissions to a user

33. What is the ROLLBACK statement used for in a transaction?

- a) Saves the changes made within a transaction
- b) Continues a transaction
- c) Reverts all changes made within a transaction**
- d) Defines a user-defined function

34. What is the purpose of data types in SQL?

- a) To define the access level of users
- b) To specify the format and range of allowed values for a column**
- c) To create relationships between tables
- d) To manage database storage

35. Table Employee has 10 records. It has a non-NULL SALARY column which is also UNIQUE. What will be the output of the given SQL Statement: SELECT COUNT(*) FROM employee WHERE SALARY > ANY (SELECT SALARY FROM EMPLOYEE);

- a) 10
- b) 1
- c) 9**
- d) 0

36. The SQL Statement: SELECT SUBSTR ('abcbabc', INSTR ('123321123', '3', 3, 2), 2) FROM DUAL;

- a) ab**
- b) bc
- c) ca
- d) null

37. What is the difference between an inner join and a self-join?

- a) An inner join combines data from two tables, while a self-join joins a table to itself.**
- b) There is no difference.
- c) Inner join is used for numeric data, while self-join is used for text data.
- d) Self-join is faster than inner join.

38. The SQL statement: SELECT ROUND (55.926, -1) FROM DUAL;

- a) is illegal
- b) prints 56
- c) print 50
- d) print 60**

39. What is the difference between logical operators (AND, OR, NOT) and comparison operators (=, <, >)?

- a) Logical operators combine conditions, while comparison operators evaluate expressions.**
- b) There is no difference.
- c) Logical operators are used for numeric data, while comparison operators are used for text data.
- d) Comparison operators are faster than logical operators.

40. What is the purpose of functions in SQL?

- a) To define the structure of a table
- b) To perform calculations or manipulations on data**
- c) To create relationships between tables
- d) To manage database users

41. What is the difference between aggregate functions (SUM, AVG, COUNT) and scalar functions (UPPER, LOWER, LENGTH)?

- a) Aggregate functions operate on groups of data, returning a single value, while scalar functions operate on individual values.**
- b) There is no difference.
- c) Aggregate functions are used for numeric data, while scalar functions are used for text data.
- d) Scalar functions are faster than aggregate functions.

42. Select * from customer join order on customer.customerid = order.customerid; This query is equivalent to?

- a) Select * from customer natural join order;**
- b) Select * from customer left join order on customer.customerid = order.customerid;
- c) Select * from customer right join order on customer.customerid = order.customerid;
- d) Select * from customer full join order on customer.customerid = order.customerid;

43. How to select all data from student table starting the name from letter 'r'?

- a) SELECT * FROM student WHERE name LIKE 'r%';**
- b) SELECT * FROM student WHERE name LIKE '%r%';
- c) SELECT * FROM student WHERE name LIKE '%r';
- d) SELECT * FROM student WHERE name LIKE '_r%';

44. Which of the following SQL statements is used to retrieve data from a table named "customers" and display all columns?

- a) CREATE TABLE customers (id INT, name VARCHAR (255));
- b) INSERT INTO customers (id, name) VALUES (1, "John Doe");
- c) SELECT * FROM customers;**
- d) UPDATE customers SET name = "Jane Doe" WHERE id = 1;

45. How can you filter the results in the "customers" table to only show customers with an ID greater than 10?

- a) SELECT * FROM customers;
- b) SELECT * FROM customers WHERE id > 10;**
- c) DELETE FROM customers WHERE id > 10;
- d) GROUP BY id FROM customers;

46. What SQL statement would you use to display the number of customers in the "customers" table?

- a) SELECT COUNT (*) FROM customers;**
- b) SELECT id FROM customers;
- c) UPDATE customers SET name = UPPER (name);
- d) ORDER BY id ASC FROM customers;

47. How can you retrieve the names of all customers from the "customers" table, sorted alphabetically (ascending order) by their names?

- a) SELECT * FROM customers;
- b) SELECT name FROM customers ORDER BY name;**
- c) SELECT name FROM customers WHERE name LIKE "%Doe%";
- d) GROUP BY name FROM customers;