**1.** Which of the following SQL statements is used to create a new table in a database?

A) INSERT INTO

B) CREATE TABLE

C) ALTER TABLE

D) SELECT INTO

**2.** What does DML stand for in SQL?

A) Data Manipulation Language

B) Data Modification Language

C) Data Management Language

D) Data Modeling Language

**3.** Which of the following is not a Data Control Language (DCL) command?

A) GRANT

B) REVOKE

C) COMMIT

D) DENY

**4.** In SQL, which command is used to remove all records from a table, including all spaces allocated for the records?

A) DELETE

B) DROP

C) TRUNCATE

D) REMOVE

**5.** Which of the following SQL clauses is used to filter records based on a specified condition?

A) SELECT

B) WHERE

C) FROM

D) GROUP BY

**6.** Which comparison operator in SQL is used to compare a value to a specified list of values?

A) BETWEEN

B) LIKE

C) IN

D) EXISTS

**7.** Consider the following SQL statement:

sql

Copy code

SELECT \* FROM Employees WHERE Name LIKE '\_a%';

Which of the following best describes the result of this query?

A) Selects employees whose names start with 'a'

B) Selects employees whose names have 'a' as the second character

C) Selects employees whose names end with 'a'

D) Selects employees whose names contain 'a' anywhere

**8.** What is the main difference between clustered and non-clustered indexes?

A) Clustered indexes are faster than non-clustered indexes

B) Clustered indexes physically sort the data, non-clustered indexes do not

C) Non-clustered indexes can only be created on numeric columns

D) Clustered indexes can be created after non-clustered indexes

**9.** Which SQL statement is used to remove an existing index from a table?

A) DROP INDEX

B) DELETE INDEX

C) ALTER TABLE DROP INDEX

D) REMOVE INDEX

**10.** In SQL, which command is used to create a synonym for an existing object?

A) CREATE ALIAS

B) CREATE SYNONYM

C) CREATE LINK

D) CREATE REFERENCE

**11.** Which of the following is a logical operator in SQL?

A) PLUS

B) AND

C) EQUALS

D) GREATER THAN

**12.** The ORDER BY clause in SQL is used for:

A) Filtering records based on a condition

B) Grouping records with identical data

C) Sorting the result set of a query

D) Joining two tables

**13.** Which SQL function can be used to count the number of records in a table?

A) SUM(\*)

B) COUNT(\*)

C) TOTAL(\*)

D) NUMBER(\*)

**14.** In SQL, which keyword is used to sort the result-set in descending order?

A) DESCEND

B) ORDER BY DESC

C) SORT DESCENDING

D) ORDER DESC

**15.** What is the purpose of the COMMIT command in SQL?

A) To save all changes made during the current transaction

B) To cancel all changes made during the current transaction

C) To grant privileges to users

D) To create a new table in the database

**16.** Which statement is true about the TRUNCATE command?

A) It removes all rows from a table but leaves the table structure

B) It deletes a table completely including its structure

C) It removes specific rows from a table based on a condition

D) It can be rolled back after execution

**17.** Which of the following constraints ensures that the values in a column are unique across the database?

A) PRIMARY KEY

B) FOREIGN KEY

C) UNIQUE

D) CHECK

**18.** When creating an index, which type of index can be based on an expression or function applied to a column?

A) Bitmap Index

B) Function-based Index

C) Composite Index

D) Unique Index

**19.** What does TCL stand for in SQL?

A) Transaction Control Language

B) Table Control Language

C) Trigger Control Language

D) Transaction Command Language

**20.** Which SQL clause is used to specify a condition while fetching data from multiple tables using a SELECT statement?

A) WHERE

B) HAVING

C) JOIN

D) ON

**21.** Which command is used to grant a user permission to access a database object?

A) ALLOW

B) GRANT

C) PERMIT

D) AUTHORIZE

**22.** Which operator is used to test for the existence of any record in a subquery?

A) EXISTS

B) ANY

C) ALL

D) IN

**23.** Given the SQL statement:

sql

Copy code

SELECT Name FROM Students WHERE Age BETWEEN 18 AND 22;

This query will:

A) Select students with Age equal to 18 or 22

B) Select students with Age greater than 18 and less than 22

C) Select students with Age between 18 and 22 inclusive

D) Cause an error due to incorrect syntax

**24.** Which of the following statements correctly drops a synonym named "EmpSynonym"?

A) DROP SYNONYM EmpSynonym;

B) DELETE SYNONYM EmpSynonym;

C) DROP ALIAS EmpSynonym;

D) REMOVE SYNONYM EmpSynonym;

**25.** The purpose of the CHECK constraint is to:

A) Limit the values that can be placed in a column

B) Ensure a column cannot have NULL values

C) Establish a relationship between tables

D) Automatically populate a column with unique values

**26.** What is the result of the following SQL statement?

sql

Copy code

SELECT \* FROM Orders WHERE OrderDate IS NULL;

A) Returns all orders where the OrderDate is not set

B) Returns all orders where the OrderDate is set to zero

C) Returns all orders sorted by OrderDate

D) Causes an error because IS NULL is invalid syntax

**27.** Which command is used to modify the structure of an existing table?

A) CHANGE TABLE

B) UPDATE TABLE

C) ALTER TABLE

D) MODIFY TABLE

**28.** Which of the following is not a valid SQL operator?

A) AND

B) OR

C) XOR

D) NOT

**29.** Which clause is used in SQL to limit the groups of returned rows to those that satisfy a specified condition, typically used with GROUP BY?

A) WHERE

B) HAVING

C) GROUP BY

D) ORDER BY

**30.** The SQL statement to remove a table from the database is:

A) DELETE TABLE table\_name;

B) DROP TABLE table\_name;

C) TRUNCATE TABLE table\_name;

D) REMOVE TABLE table\_name;

**Answers**

1. **B)** CREATE TABLE
2. **A)** Data Manipulation Language
3. **C)** COMMIT
4. **C)** TRUNCATE
5. **B)** WHERE
6. **C)** IN
7. **B)** Selects employees whose names have 'a' as the second character
8. **B)** Clustered indexes physically sort the data, non-clustered indexes do not
9. **A)** DROP INDEX
10. **B)** CREATE SYNONYM
11. **B)** AND
12. **C)** Sorting the result set of a query
13. **B)** COUNT(\*)
14. **B)** ORDER BY DESC
15. **A)** To save all changes made during the current transaction
16. **A)** It removes all rows from a table but leaves the table structure
17. **C)** UNIQUE
18. **B)** Function-based Index
19. **A)** Transaction Control Language
20. **D)** ON
21. **B)** GRANT
22. **A)** EXISTS
23. **C)** Select students with Age between 18 and 22 inclusive
24. **A)** DROP SYNONYM EmpSynonym;
25. **A)** Limit the values that can be placed in a column
26. **A)** Returns all orders where the OrderDate is not set
27. **C)** ALTER TABLE
28. **C)** XOR
29. **B)** HAVING
30. **B)** DROP TABLE table\_name;

**1.** Which SQL statement is used to modify data in an existing table?

A) ALTER TABLE

B) UPDATE

C) INSERT INTO

D) MODIFY

**2.** Which of the following is a Data Definition Language (DDL) command?

A) SELECT

B) DELETE

C) DROP

D) COMMIT

**3.** What does the SQL wildcard '%' represent when used with the LIKE operator?

A) Any single character

B) Zero or more characters

C) Exactly one character

D) A range of characters

**4.** In SQL, which clause is used to specify the conditions that must be met for the records to be selected?

A) FROM

B) WHERE

C) HAVING

D) ORDER BY

**5.** Which command is used to revoke permissions from a user in SQL?

A) DENY

B) REVOKE

C) REMOVE

D) DELETE

**6.** What is the result of the following SQL query?

sql

Copy code

SELECT COUNT(\*) FROM Products WHERE Price > 100;

A) Returns the total number of products

B) Returns the number of products with Price greater than 100

C) Returns the sum of prices greater than 100

D) Returns all products with Price greater than 100

**7.** Consider the SQL query:

sql

Copy code

SELECT Name FROM Employees ORDER BY Salary DESC;

What does this query do?

A) Selects employee names and sorts them alphabetically

B) Selects employee names and sorts them by highest salary first

C) Selects employee names and salaries in descending order

D) Causes an error because Salary is not selected

**8.** Which of the following constraints enforces a relationship between tables?

A) UNIQUE

B) CHECK

C) FOREIGN KEY

D) NOT NULL

**9.** In SQL, what does the 'BETWEEN' operator do?

A) Selects values within a given range, exclusive

B) Selects values within a given range, inclusive

C) Compares values equal to one of two specified values

D) Checks if a value is null or not null

**10.** Which of the following is not a valid SQL comment syntax?

A) -- Single line comment

B) /\* Multi-line comment \*/

C) # Single line comment

D) // Single line comment

**11.** Given the SQL query:

sql

Copy code

SELECT \* FROM Orders WHERE OrderDate = '2022-05-01';

This query will:

A) Return orders placed on May 1, 2022

B) Return orders placed after May 1, 2022

C) Return orders placed before May 1, 2022

D) Cause an error due to date format

**12.** Which operator is used to combine multiple conditions in a SQL WHERE clause where all conditions must be true?

A) OR

B) AND

C) NOT

D) XOR

**13.** What is the primary purpose of a function-based index?

A) To index multiple columns

B) To index a column based on a function or expression

C) To enforce uniqueness on a column

D) To physically sort the data in a table

**14.** Which of the following statements about clustered indexes is true?

A) A table can have multiple clustered indexes

B) Clustered indexes are stored separately from the table data

C) The leaf nodes of a clustered index contain the actual data pages

D) Clustered indexes can only be created on primary keys

**15.** What does the following SQL statement do?

sql

Copy code

CREATE INDEX idx\_name ON Customers (LastName);

A) Creates a primary key on the LastName column

B) Creates an index named idx\_name on the LastName column

C) Creates a view named idx\_name for the Customers table

D) Alters the Customers table to add the idx\_name column

**16.** Predict the output of the following SQL query:

sql

Copy code

SELECT 10 / 2 + 5 \* 2;

A) 15

B) 20

C) 25

D) 17

**17.** Given the following table 'Numbers':

| **Value** |
| --- |
| 0 |
| 1 |
| NULL |
| 2 |
| NULL |

What is the output of the SQL query?

sql

Copy code

SELECT COUNT(Value) FROM Numbers;

A) 5

B) 3

C) 2

D) 4

**18.** What will be the result of this SQL query?

sql

Copy code

SELECT COALESCE(NULL, 'A', 'B') AS Result;

A) NULL

B) 'A'

C) 'B'

D) 'AB'

**19.** Consider the SQL statement:

sql

Copy code

SELECT \* FROM Products WHERE Price NOT BETWEEN 50 AND 100;

This query will select products:

A) Priced between 50 and 100 inclusive

B) Priced less than 50 and greater than 100

C) Priced exactly at 50 or 100

D) Priced outside the range of 50 to 100 inclusive

**20.** What is the output of the following SQL query?

sql

Copy code

SELECT 'Hello' + ' ' + 'World' AS Greeting;

A) 'Hello World'

B) 'HelloWorld'

C) Causes an error due to invalid syntax

D) NULL

**21.** Given a table 'Employees' with columns 'Name' and 'Salary', what does this query return?

sql

Copy code

SELECT Name FROM Employees WHERE Salary IN (SELECT MAX(Salary) FROM Employees);

A) Names of employees with the minimum salary

B) Names of employees with the average salary

C) Names of employees with the maximum salary

D) All employee names

**22.** Predict the result of this SQL query:

sql

Copy code

SELECT CASE WHEN NULL = NULL THEN 'Equal' ELSE 'Not Equal' END AS Result;

A) 'Equal'

B) 'Not Equal'

C) NULL

D) Causes an error

**23.** What will be the output of the following SQL query?

sql

Copy code

SELECT 15 % 4 AS Remainder;

A) 3

B) 4

C) 15

D) 0

**24.** Given the table 'Students' with columns 'Name' and 'Age', what does this query do?

sql

Copy code

SELECT Name FROM Students WHERE Age LIKE '2\_';

A) Selects students aged 2

B) Selects students aged 20 to 29

C) Selects students aged 21

D) Selects students with '2' as the first digit of Age

**25.** Predict the output of the following SQL query:

sql

Copy code

SELECT ISNULL(NULL, 'Default') AS Result;

A) NULL

B) 'Default'

C) 'NULL'

D) Causes an error

**26.** What will be the result of this SQL statement?

sql

Copy code

SELECT \* FROM Employees WHERE Department IS NOT NULL AND Salary > 50000;

A) Employees with Salary over 50000

B) Employees in any Department with any Salary

C) Employees in a Department and Salary over 50000

D) Employees with no Department and Salary over 50000

**27.** Given the table 'Orders' with columns 'OrderID' and 'Quantity', what does this query return?

sql

Copy code

SELECT SUM(Quantity) FROM Orders GROUP BY OrderID HAVING SUM(Quantity) > 100;

A) Total quantity of all orders over 100

B) OrderIDs with total quantity over 100

C) Sum of quantities for orders where the total quantity is over 100

D) Orders with quantity exactly 100

**28.** Predict the result of the SQL query:

sql

Copy code

SELECT POWER(2, 3) AS Result;

A) 6

B) 8

C) 9

D) 5

**29.** What will this SQL query return?

sql

Copy code

SELECT \* FROM Products WHERE Name LIKE '%a%';

A) Products with names starting with 'a'

B) Products with names ending with 'a'

C) Products with names containing 'a' anywhere

D) Products with names having 'a' as the second character

**30.** Given the table 'Sales' with columns 'SaleID', 'Amount', and 'Region', what does this query do?

sql

Copy code

SELECT Region, COUNT(\*) FROM Sales GROUP BY Region;

A) Counts the total sales amount per region

B) Lists regions with the number of sales in each

C) Lists all sales and regions

D) Causes an error due to missing aggregate function

**Answers**

1. **B)** UPDATE
2. **C)** DROP
3. **B)** Zero or more characters
4. **B)** WHERE
5. **B)** REVOKE
6. **B)** Returns the number of products with Price greater than 100
7. **B)** Selects employee names and sorts them by highest salary first
8. **C)** FOREIGN KEY
9. **B)** Selects values within a given range, inclusive
10. **D)** // Single line comment
11. **A)** Return orders placed on May 1, 2022
12. **B)** AND
13. **B)** To index a column based on a function or expression
14. **C)** The leaf nodes of a clustered index contain the actual data pages
15. **B)** Creates an index named idx\_name on the LastName column
16. **D)** 17
17. **B)** 3
18. **B)** 'A'
19. **D)** Priced outside the range of 50 to 100 inclusive
20. **C)** Causes an error due to invalid syntax
21. **C)** Names of employees with the maximum salary
22. **B)** 'Not Equal'
23. **A)** 3
24. **B)** Selects students aged 20 to 29
25. **B)** 'Default'
26. **C)** Employees in a Department and Salary over 50000
27. **C)** Sum of quantities for orders where the total quantity is over 100
28. **B)** 8
29. **C)** Products with names containing 'a' anywhere
30. **B)** Lists regions with the number of sales in each

**Questions**

**1.** Which clause is evaluated first in a SQL query execution order?

A) WHERE

B) GROUP BY

C) HAVING

D) SELECT

**2.** In SQL, which clause is used to filter records **before** any grouping is applied?

A) WHERE

B) HAVING

C) GROUP BY

D) ORDER BY

**3.** Which clause is used in SQL to filter groups **after** grouping has been performed?

A) WHERE

B) HAVING

C) GROUP BY

D) SELECT

**4.** Given a table Sales with columns Region, Product, and Amount, what does the following SQL query return?

sql

Copy code

SELECT Region, SUM(Amount) AS TotalSales

FROM Sales

GROUP BY Region

HAVING SUM(Amount) > 10000;

A) Regions where total sales amount is less than or equal to 10,000

B) Regions where total sales amount is exactly 10,000

C) Regions where total sales amount is greater than 10,000

D) All regions regardless of total sales amount

**5.** Which of the following statements about the WHERE and HAVING clauses is true?

A) WHERE filters rows before aggregation; HAVING filters groups after aggregation

B) WHERE filters groups after aggregation; HAVING filters rows before aggregation

C) Both WHERE and HAVING filter groups after aggregation

D) Both WHERE and HAVING filter rows before aggregation

**6.** Consider the following SQL query:

sql

Copy code

SELECT Department, COUNT(\*) AS NumEmployees

FROM Employees

WHERE Salary > 50000

GROUP BY Department

HAVING COUNT(\*) > 5;

This query will:

A) List departments with more than 5 employees, regardless of salary

B) List departments where more than 5 employees have a salary over 50,000

C) List all departments with employees earning over 50,000

D) Cause an error due to incorrect use of HAVING

**7.** Which of the following queries will produce an error?

A)

sql

Copy code

SELECT Department, COUNT(\*)

FROM Employees

GROUP BY Department

HAVING COUNT(\*) > 10;

B)

sql

Copy code

SELECT Department, COUNT(\*)

FROM Employees

HAVING COUNT(\*) > 10;

C)

sql

Copy code

SELECT Department, COUNT(\*)

FROM Employees

WHERE Salary > 50000

GROUP BY Department;

D)

sql

Copy code

SELECT Department, COUNT(\*)

FROM Employees

WHERE Department = 'Sales'

GROUP BY Department;

**8.** What will be the result of the following SQL query?

sql

Copy code

SELECT City, AVG(Salary) AS AverageSalary

FROM Employees

GROUP BY City

HAVING AVG(Salary) < 60000;

A) List of all cities with their average salary

B) Cities where the average salary is less than 60,000

C) Cities where the average salary is more than 60,000

D) All employees earning less than 60,000

**9.** In which clauses can you use aggregate functions in SQL?

A) SELECT and WHERE only

B) WHERE and HAVING only

C) HAVING and SELECT only

D) SELECT and HAVING only

**10.** Given the table Orders with columns OrderID, CustomerID, OrderDate, and Amount, what does the following query do?

sql

Copy code

SELECT CustomerID, SUM(Amount) AS TotalAmount

FROM Orders

WHERE YEAR(OrderDate) = 2023

GROUP BY CustomerID

ORDER BY TotalAmount DESC;

A) Lists customers and their total order amount in 2023, sorted by highest total amount first

B) Lists all orders in 2023, sorted by amount

C) Lists customers who placed orders in 2023, unsorted

D) Causes an error due to invalid use of ORDER BY

**11.** Which of the following best describes the difference between WHERE and HAVING clauses?

A) WHERE can use aggregate functions; HAVING cannot

B) HAVING can use aggregate functions; WHERE cannot

C) Both WHERE and HAVING can use aggregate functions

D) Neither WHERE nor HAVING can use aggregate functions

**12.** Predict the output of the following SQL query given the Products table:

| **Category** | **Price** | **InStock** |
| --- | --- | --- |
| Electronics | 300 | Yes |
| Electronics | 150 | No |
| Furniture | 700 | Yes |
| Furniture | 800 | Yes |
| Clothing | 50 | Yes |
| Clothing | 40 | No |

Query:

sql

Copy code

SELECT Category, COUNT(\*) AS TotalItems

FROM Products

WHERE InStock = 'Yes'

GROUP BY Category

HAVING COUNT(\*) > 1;

What will be the result?

A) List of all categories with total items in stock

B) Categories where more than one item is in stock

C) Categories with only one item in stock

D) All categories regardless of stock status

Answer  
**Answers**

1. **A)** WHERE
2. **A)** WHERE
3. **B)** HAVING
4. **C)** Regions where total sales amount is greater than 10,000
5. **A)** WHERE filters rows before aggregation; HAVING filters groups after aggregation
6. **B)** List departments where more than 5 employees have a salary over 50,000
7. **B)** (Produces an error because HAVING cannot be used without GROUP BY)
8. **B)** Cities where the average salary is less than 60,000
9. **D)** SELECT and HAVING only
10. **A)** Lists customers and their total order amount in 2023, sorted by highest total amount first
11. **B)** HAVING can use aggregate functions; WHERE cannot
12. **B)** Categories where more than one item is in stock