---

### DBMS Multiple Choice Questions

1. \*\*What is the purpose of the WHERE clause in SQL?\*\*

a) To define a new table

b) To specify which records to update

c) To limit the results of a query

d) To delete records

\*\*Correct Answer:\*\* b

2. \*\*Which SQL clause is used to filter groups after the GROUP BY clause?\*\*

a) HAVING

b) GROUP BY

c) ORDER BY

d) WHERE

\*\*Correct Answer:\*\* a

3. \*\*What is the result of a SQL inner join?\*\*

a) Returns matching rows from both tables

b) Returns all rows from both tables, including unmatched rows

c) Returns unmatched rows from the left table

d) Combines columns from both tables

\*\*Correct Answer:\*\* a

4. \*\*Which of the following joins includes all records from the left table and matched records from the right table?\*\*

a) LEFT JOIN

b) RIGHT JOIN

c) FULL JOIN

d) CROSS JOIN

\*\*Correct Answer:\*\* a

5. \*\*Which sub-query uses values from the outer query?\*\*

a) Simple sub-query

b) Correlated sub-query

c) Independent sub-query

d) Nested sub-query

\*\*Correct Answer:\*\* b

6. \*\*Which statement is used to get all data from the student table whose name starts with 'p'?\*\*

a) SELECT \* FROM student WHERE name LIKE '%p%';

b) SELECT \* FROM student WHERE name LIKE 'p%';

c) SELECT \* FROM student WHERE name LIKE '\_p%';

d) SELECT \* FROM student WHERE name LIKE '%p';

\*\*Correct Answer:\*\* b

7. \*\*Which of the following is the full form of TCL?\*\*

a) Ternary control language

b) Transaction control language

c) Transaction central language

d) Transmission control language

\*\*Correct Answer:\*\* b

8. \*\*Select the correct advantages of view.\*\*

a) Derived columns

b) Data security

c) Hiding of complex queries

d) All of the above

\*\*Correct Answer:\*\* d

9. \*\*Which SQL clause is used to filter groups of rows that have been aggregated?\*\*

a) WHERE

b) HAVING

c) GROUP BY

d) ORDER BY

\*\*Correct Answer:\*\* b

10. \*\*Which of the following triggers is executed automatically before a record is updated in a table?\*\*

a) BEFORE UPDATE

b) AFTER UPDATE

c) BEFORE INSERT

d) AFTER INSERT

\*\*Correct Answer:\*\* a

11. \*\*What happens if a trigger tries to modify the same table that fired the trigger in MySQL?\*\*

a) The operation completes successfully

b) It causes an infinite loop

c) MySQL raises an error

d) The trigger is ignored

\*\*Correct Answer:\*\* c

12. \*\*How would you modify a trigger in MySQL?\*\*

a) ALTER TRIGGER trigger\_name

b) MODIFY TRIGGER trigger\_name

c) CREATE OR REPLACE TRIGGER trigger\_name

d) DROP and recreate the trigger

\*\*Correct Answer:\*\* d

13. \*\*In which cases are triggers more useful than stored procedures?\*\*

a) For repeated tasks with multiple parameters

b) For data validation or logging during INSERT or UPDATE operations

c) For complex calculations

d) For handling user input

\*\*Correct Answer:\*\* b

14. \*\*How can you iterate over the result set of a cursor in MySQL?\*\*

a) FOR EACH row

b) LOOP cursor

c) FETCH INTO

d) OPEN EACH

\*\*Correct Answer:\*\* c

15. \*\*Which of the following keywords is used with Data Control Language (DCL) statements?\*\*

a) SELECT

b) INSERT

c) DELETE

d) GRANT

\*\*Correct Answer:\*\* d

16. \*\*DCL provides commands to perform actions like \_\_\_\_\_\_\_\_\_\_\_\_\_\*\*

a) Change the structure of tables

b) Insert, update or delete records and data values

c) Authorizing access and other control over the database

d) None of the mentioned

\*\*Correct Answer:\*\* c

17. \*\*The IN, OUT, and INOUT keywords do not apply to stored functions.\*\*

a) True

b) False

\*\*Correct Answer:\*\* a

18. \*\*How many values can be returned from a given stored function?\*\*

a) 0

b) 1

c) 2

d) 3

\*\*Correct Answer:\*\* b

19. \*\*How many values can be returned from a stored procedure?\*\*

a) 0

b) 1

c) 2

d) 3

\*\*Correct Answer:\*\* a

20. \*\*If emp\_id contains the following set {1, 2, 3, 4, 1, 1}, what will be the output on execution of the following MySQL statement: SELECT emp\_id FROM person ORDER BY emp\_id DESC;\*\*

a) {4, 3, 2, 1, 1, 1}

b) {1, 2, 3, 4, 1, 1}

c) {1, 1, 2, 3, 4, 1}

d) None of the mentioned

\*\*Correct Answer:\*\* a

21. \*\*What is the significance of “ORDER BY emp\_id ASC” in the following MySQL command: SELECT emp\_id, fname, lname FROM person ORDER BY emp\_id ASC;\*\*

a) Data of emp\_id will be sorted in descending order

b) Data of emp\_id will be sorted in ascending order

c) Data of emp\_id will be sorted in either ascending or descending order

d) All of the mentioned

\*\*Correct Answer:\*\* b

22. \*\*What is the purpose of the OFFSET clause in SQL?\*\*

a) To limit the number of rows returned by a query

b) To specify the starting point from which rows should be returned

c) To order the result set

d) To filter rows based on a condition

\*\*Correct Answer:\*\* b

23. \*\*What does the following query do? SELECT MAX(price) AS highest\_price FROM MenuItems WHERE restaurant\_id = 601;\*\*

a) Retrieves the maximum price of all menu items in a restaurant with ID 601.

b) Retrieves the minimum price of all menu items in a restaurant with ID 601.

c) Retrieves the average price of all menu items in a restaurant with ID 601.

d) Retrieves the total price of all menu items in restaurant with ID 601.

\*\*Correct Answer:\*\* a

24. \*\*A relation R = {A, B, C, D, E, F} is given with the following set of functional dependencies: F = {A→B, AD→C, B→F, A→E}. Which of the following is a candidate key?\*\*

a) A

b) AC

c) AD

d) None of these

\*\*Correct Answer:\*\* c

25. \*\*Which of the following is the key for the universal relation R = {A, B, X, D, E, Y, G, H, Z}? Given the following set of functional dependencies: F = {BD → EY, AD → GH, A → Z, AB → X}.\*\*

a) AB

b) ABD

c) ABX

d) BD

\*\*Correct Answer:\*\* b

26. \*\*Which query will return employees who earn the second highest salary?\*\*

a) SELECT Name FROM Employees WHERE Salary = (SELECT MAX(Salary) FROM Employees WHERE Salary < (SELECT MAX(Salary) FROM Employees));

b) SELECT Name FROM Employees WHERE Salary = (SELECT MIN(Salary) FROM Employees WHERE Salary > (SELECT MIN(Salary) FROM Employees));

c) SELECT Name FROM Employees WHERE Salary = (SELECT MAX(Salary) FROM Employees LIMIT 1 OFFSET 2);

d) SELECT Name FROM Employees WHERE Salary > (SELECT MAX(Salary) FROM Employees);

\*\*Correct Answer:\*\* a

27. \*\*Which of the following is TRUE?\*\*

a) Every relation in 2NF is also in BCNF

b) A relation R is in 3NF if every non-prime attribute of R is fully functionally dependent on every key of R

c) Every relation in BCNF is also in 3NF

d) No relation can be in both BCNF and 3NF

\*\*Correct Answer:\*\* c

28. \*\*What is the result of the following SQL query: SELECT Employees.name, Departments.department\_name FROM Employees LEFT JOIN Departments ON Employees.department\_id = Departments.department\_id;\*\*

a) Only employees who are assigned to a department

b) Only departments that have employees

c) All employees, including those not assigned to a department

d) All departments, including those without employees

\*\*Correct Answer:\*\* c

29. \*\*How can you change "Thomas" into "Michel" in the "LastName" column in the Users table?\*\*

a) UPDATE User SET LastName

= 'Thomas' INTO LastName = 'Michel'

b) MODIFY Users SET LastName = 'Michel' WHERE LastName = 'Thomas'

c) MODIFY Users SET LastName = 'Thomas' INTO LastName = 'Michel'

d) UPDATE Users SET LastName = 'Michel' WHERE LastName = 'Thomas'

\*\*Correct Answer:\*\* d

30. \*\*Find the cities name with the condition and temperature from the table 'weather' where condition = sunny or cloudy but temperature >= 60.\*\*

a) SELECT city, temperature, condition FROM weather WHERE condition = 'cloudy' AND condition = 'sunny' OR temperature >= 60

b) SELECT city, temperature, condition FROM weather WHERE condition = 'cloudy' OR condition = 'sunny' OR temperature >= 60

c) SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' OR condition = 'cloudy' AND temperature >= 60

d) SELECT city, temperature, condition FROM weather WHERE condition = 'sunny' AND condition = 'cloudy' AND temperature >= 60

\*\*Correct Answer:\*\* c

31. \*\*What will be the result of executing the following procedure if there is no order\_id available with 543?\*\*

```sql

CREATE PROCEDURE total\_orders()

BEGIN

DECLARE total INT;

SELECT COUNT(\*) INTO total FROM orders WHERE order\_id = 543;

IF total = 0 THEN

SELECT 'No orders found';

ELSE

SELECT total AS 'Total Orders';

END IF;

END;

```

a) No orders found

b) Total Orders = 0

c) Total Orders = total number of orders

d) An error occurs

\*\*Correct Answer:\*\* a

32. \*\*If the following trigger is activated after a DELETE on users, what will happen?\*\*

```sql

CREATE TRIGGER after\_delete\_user

AFTER DELETE ON users

FOR EACH ROW

BEGIN

INSERT INTO logs (action, user\_id) VALUES ('User deleted', OLD.id);

END;

```

a) The log will not record anything.

b) It will log ‘User deleted’ with the corresponding user ID.

c) An error occurs because OLD.id is not valid.

d) The users table will be restored.

\*\*Correct Answer:\*\* b

33. \*\*What will the following procedure return when called?\*\*

```sql

CREATE PROCEDURE check\_order(IN order\_id INT)

BEGIN

IF (SELECT COUNT(\*) FROM orders WHERE id = order\_id) > 0 THEN

SELECT 'Order exists';

ELSE

SELECT 'Order not found';

END IF;

END;

```

a) Order exists

b) Order not found

c) Option A or B (depends on order\_id)

d) An error occurs

\*\*Correct Answer:\*\* c

34. \*\*What will the following trigger do after an UPDATE operation on the inventory table?\*\*

```sql

CREATE TRIGGER after\_update\_inventory

AFTER UPDATE ON inventory

FOR EACH ROW

BEGIN

INSERT INTO audit (action, product\_id, new\_stock) VALUES ('Updated', NEW.product\_id, NEW.stock);

END;

```

a) Log the update action with product ID and new stock level.

b) Nothing happens; triggers are not logged.

c) An error occurs due to OLD values.

d) It updates the inventory without logging.

\*\*Correct Answer:\*\* a

35. \*\*What will be the output of this procedure if the sales table is empty?\*\*

```sql

CREATE PROCEDURE get\_total\_sales()

BEGIN

DECLARE total\_sales DECIMAL(10,2);

SELECT SUM(amount) INTO total\_sales FROM sales;

SELECT total\_sales;

END;

```

a) 0

b) NULL

c) An error occurs

d) An empty result set

\*\*Correct Answer:\*\* b

---

36. \*\*Which of the following SQL statements will retrieve all columns from the "Customers" table where the "Country" is "USA"?\*\*

a) SELECT \* FROM Customers WHERE Country = 'USA';

b) SELECT \* FROM Customers WHERE Country LIKE 'USA';

c) SELECT Customers.\* FROM Customers WHERE Country IS 'USA';

d) SELECT \* FROM Customers WHERE Country = 'United States';

\*\*Correct Answer:\*\* a

37. \*\*What is the result of the following SQL statement? SELECT ROUND(123.4567, 2);\*\*

a) 123.46

b) 123.45

c) 123.456

d) 124

\*\*Correct Answer:\*\* a

38. \*\*Which of the following is not a valid SQL aggregate function?\*\*

a) COUNT

b) SUM

c) MAX

d) APPEND

\*\*Correct Answer:\*\* d

39. \*\*What does the DISTINCT keyword do in a SQL query?\*\*

a) It sorts the results in ascending order.

b) It removes duplicate records from the results.

c) It selects a specific number of records.

d) It filters results based on a condition.

\*\*Correct Answer:\*\* b

40. \*\*Which statement is used to remove a table from a database?\*\*

a) DELETE TABLE table\_name;

b) DROP TABLE table\_name;

c) REMOVE TABLE table\_name;

d) CLEAR TABLE table\_name;

\*\*Correct Answer:\*\* b

41. \*\*Which SQL clause is used to sort the result set of a query?\*\*

a) GROUP BY

b) ORDER BY

c) SORT BY

d) ARRANGE BY

\*\*Correct Answer:\*\* b

42. \*\*What does the following SQL statement do? DELETE FROM Employees WHERE Salary < 30000;\*\*

a) It deletes all records from the Employees table.

b) It removes employees with a salary less than 30,000.

c) It updates the salaries of employees to 30,000.

d) It archives the employees with a salary of 30,000 or more.

\*\*Correct Answer:\*\* b

43. \*\*Which SQL command is used to modify existing data in a table?\*\*

a) UPDATE

b) MODIFY

c) CHANGE

d) ALTER

\*\*Correct Answer:\*\* a

44. \*\*What will the following SQL query return? SELECT name, COUNT(\*) FROM Students GROUP BY name HAVING COUNT(\*) > 1;\*\*

a) A list of students with unique names.

b) A list of names with their count where the count is greater than 1.

c) An error because GROUP BY cannot be used without SELECT.

d) A list of all students, regardless of count.

\*\*Correct Answer:\*\* b