### **MySQL MCQs**

1. **Which of the following is a MySQL command to view the current databases? [ a ]**
   * a) SHOW DATABASES;
   * b) DISPLAY DATABASES;
   * c) LIST DATABASES;
   * d) VIEW DATABASES;
2. **What is the correct command to create a new database in MySQL? [ b ]**
   * a) CREATE NEW DATABASE db\_name;
   * b) CREATE DATABASE db\_name;
   * c) NEW DATABASE db\_name;
   * d) MAKE DATABASE db\_name;
3. **Which command is used to delete a database in MySQL? [ c ]**
   * a) DELETE DATABASE db\_name;
   * b) REMOVE DATABASE db\_name;
   * c) DROP DATABASE db\_name;
   * d) ERASE DATABASE db\_name;
4. **How do you select all columns from a table named 'users'? [ b ]**
   * a) SELECT ALL FROM users;
   * b) SELECT \* FROM users;
   * c) SELECT FROM users;
   * d) SHOW \* FROM users;
5. **Which of the following is used to add a new column to an existing table? [ b ]**
   * a) ADD COLUMN table\_name column\_name column\_type;
   * b) ALTER TABLE table\_name ADD COLUMN column\_name column\_type;
   * c) MODIFY TABLE table\_name ADD column\_name column\_type;
   * d) INSERT COLUMN table\_name column\_name column\_type;
6. **What is the command to delete rows from a table based on a condition? [ b ]**
   * a) REMOVE FROM table\_name WHERE condition;
   * b) DELETE FROM table\_name WHERE condition;
   * c) ERASE FROM table\_name WHERE condition;
   * d) CLEAR FROM table\_name WHERE condition;
7. **Which SQL statement is used to update data in a table? [ c ]**
   * a) MODIFY table\_name SET column\_name = value WHERE condition;
   * b) CHANGE table\_name SET column\_name = value WHERE condition;
   * c) UPDATE table\_name SET column\_name = value WHERE condition;
   * d) EDIT table\_name SET column\_name = value WHERE condition;
8. **Which keyword is used to sort the results of a query? [ a ]**
   * a) ORDER BY
   * b) SORT BY
   * c) GROUP BY
   * d) ARRANGE BY
9. **How can you limit the number of rows returned by a query? [ a ]**
   * a) LIMIT number;
   * b) RESTRICT number;
   * c) ROWS number;
   * d) COUNT number;
10. **Which function is used to count the number of rows in a table? [ b ]**
    * a) SUM()
    * b) COUNT()
    * c) TOTAL()
    * d) NUMBER()
11. **What is a primary key? [ a ]**
    * a) A column that uniquely identifies each row in a table
    * b) A column that can contain duplicate values
    * c) A column used to establish relationships between tables
    * d) A column that always has a default value
12. **Which MySQL statement is used to create a table? [ c ]**
    * a) NEW TABLE table\_name (columns);
    * b) ADD TABLE table\_name (columns);
    * c) CREATE TABLE table\_name (columns);
    * d) MAKE TABLE table\_name (columns);
13. **What does the 'NULL' value represent in MySQL? [ a ]**
    * a) Zero
    * b) Empty string
    * c) Missing or undefined value
    * d) A space character
14. **Which SQL clause is used to filter records? [ b ]**
    * a) FILTER
    * b) WHERE
    * c) HAVING
    * d) LIMIT
15. **How do you rename a table in MySQL? [ b ]**
    * a) RENAME table\_name TO new\_table\_name;
    * b) ALTER TABLE table\_name TO new\_table\_name;
    * c) MODIFY TABLE table\_name TO new\_table\_name;
    * d) CHANGE TABLE table\_name TO new\_table\_name;
16. **Which operator is used to check for a specified pattern in a column? [ a ]**
    * a) LIKE
    * b) MATCH
    * c) PATTERN
    * d) SEARCH
17. **What is the purpose of the GROUP BY clause? [ c ]**
    * a) To sort data
    * b) To filter data
    * c) To group rows that have the same values in specified columns into summary rows
    * d) To limit data
18. **How do you combine rows from two or more tables, based on a related column? [ b ]**
    * a) MERGE
    * b) JOIN
    * c) LINK
    * d) COMBINE
19. **Which command is used to remove a column from a table? [ c ]**
    * a) DELETE COLUMN column\_name FROM table\_name;
    * b) REMOVE COLUMN column\_name FROM table\_name;
    * c) DROP COLUMN column\_name FROM table\_name;
    * d) ERASE COLUMN column\_name FROM table\_name;
20. **Which clause is used to filter the results set after grouping? [ b ]** 
    * a) WHERE
    * b) HAVING
    * c) GROUP BY
    * d) FILTER
21. **What is the correct syntax for a MySQL INSERT statement? [ a ]**
    * a) INSERT INTO table\_name (columns) VALUES (values);
    * b) ADD INTO table\_name (columns) VALUES (values);
    * c) INSERT table\_name (columns) VALUES (values);
    * d) ADD table\_name (columns) VALUES (values);
22. **Which of the following is true about foreign keys? [ b ]**
    * a) They uniquely identify each row in a table
    * b) They enforce a link between the data in two tables
    * c) They allow duplicate values
    * d) They always have a default value
23. **What does the DISTINCT keyword do? [ a ]** 
    * a) It selects all unique values
    * b) It sorts the results
    * c) It groups the results
    * d) It filters the results
24. **Which MySQL function is used to calculate the average value of a numeric column? [ d ]**
    * a) SUM()
    * b) COUNT()
    * c) AVERAGE()
    * d) AVG()
25. **How do you select all columns from a table named 'customers' where the 'age' is greater than 30? [ a ]**
    * a) SELECT \* FROM customers WHERE age > 30;
    * b) SELECT ALL FROM customers WHERE age > 30;
    * c) SELECT \* FROM customers HAVING age > 30;
    * d) SELECT ALL FROM customers HAVING age > 30;
26. **Which MySQL command is used to delete a table? [ a ]**
    * a) DROP TABLE table\_name;
    * b) DELETE TABLE table\_name;
    * c) REMOVE TABLE table\_name;
    * d) ERASE TABLE table\_name;
27. **What does the AUTO\_INCREMENT attribute do? [ b ]**
    * a) Automatically inserts a null value
    * b) Automatically inserts a unique value
    * c) Automatically inserts a zero value
    * d) Automatically inserts the previous row's value
28. **Which MySQL data type is used to store large text? [ a ]**
    * a) TEXT
    * b) VARCHAR
    * c) CHAR
    * d) STRING
29. **How do you create a stored procedure in MySQL? [ a ]**
    * a) CREATE PROCEDURE proc\_name AS BEGIN ... END;
    * b) NEW PROCEDURE proc\_name AS BEGIN ... END;
    * c) ADD PROCEDURE proc\_name AS BEGIN ... END;
    * d) MAKE PROCEDURE proc\_name AS BEGIN ... END;
30. **What is the command to display the structure of a table? [ b ]**
    * a) SHOW TABLE table\_name;
    * b) DESCRIBE table\_name;
    * c) EXPLAIN table\_name;
    * d) VIEW TABLE table\_name;

### **MySQL Exercises**

1. **Create a database named library.**

* create database library;

1. **Create a table named books with columns id, title, author, and published\_year.**

* create table books(book\_id varchar(10),book\_title varchar(50),book\_author varchar(50),book\_published\_year varchar(10));

1. **Insert three records into the books table.**

* Insert into books values(1,’rich dad poor dad’,’robert T.kiyosaki’,’1997’),(2,’Alice in Wonderland’,’Lewis carrol’,’1865’),(3,’Harry Potter’,’J.K.Rowling,’1999’);

1. **Update the author of the book with id 1 to 'George Orwell'.**

* update books set book\_author=’George Orwell’ where book\_id=1;

1. **Delete the book with id 3 from the books table.**

* delete from books where book\_id=3;

1. **Select all columns from the books table.**

* select \* from books;

1. **Select only the title and author columns from the books table.**

* select book\_title,book\_author from books;

1. **Create a table named members with columns id, name, and membership\_date.**

* create table members(member\_id int(10),member\_name varchar(20),membership\_date varchar(20));

1. **Insert five records into the members table.**

* insert into members values(101,’bhavya’,’2025-01-01’),(102,’jagadeesh’,’2025-01-05’),(103,’jeevan’,’2025-01-10’),(104,’eswar’,’2025-01-15’),(105,’deepika’,’2025-01-20’);

1. **Update the name of the member with id 2 to 'Jane Doe'.**

* update members set member\_name=’Jane Doe’ where member\_id=102;

1. **Delete the member with id 5 from the members table.**

* delete from members from where member\_id=105;

1. **Select all columns from the members table.**

* select \* from members;

1. **Create a table named loans with columns id, book\_id, member\_id, and loan\_date.**

* create table loans(loan\_id int(10),loan\_book\_id varchar(10),member\_id varchar(20),loan\_date varchar(15));

1. **Insert three records into the loans table.**

* insert into loans values(1,’101’,’21’,’2025-01-01’),(2,’102’,’22’,’2025-01-10’),(3,’103’,’23’,’2025-01-20’);

1. **Select all loans where the loan\_date is after '2023-01-01'.**

* select \* from loans where loan\_date > ‘2023-01-01’;

1. **Add a new column return\_date to the loans table.**

* alter table loans add column return\_date varchar(20);

1. **Update the return\_date for the loan with id 1 to '2023-06-01'.**

* update loans set return\_date = ‘2026-01-01’ where loan\_id=1;

1. **Delete the loan with id 3 from the loans table.**

* delete from loans where loan\_id=3;

1. **Select all columns from the loans table.**

* select \* from loans;

1. **Create a view named member\_loans that shows the member's name and the titles of the books they have borrowed.**

* create view member\_loans as select m.member\_name, b.book\_title from members m join loans l on m.member\_id = l.member\_id joi  
  n books b on l.loan\_book\_id = b.book\_id;

1. **Create a stored procedure named get\_book\_by\_title that takes a title as input and returns the book details.**

* delimiter // create procedure get\_book\_by\_title(in book\_title varchar(255)) begin select \* from books where title = book\_title; end // delimiter ;
* call get\_book\_by\_title('some book title');

1. **Create an index on the title column of the books table.**

* create index my\_index\_title on books(book\_title);

1. **Create a trigger that updates a last\_updated column in the books table every time a record is updated.**

* delimiter // create trigger update\_last\_updated before update on books for each row begin set new.last\_updated = now(); end // delimiter ;

1. **Grant all privileges on the library database to a user named 'librarian' with password 'password123'.**

* create user 'librarian'@'localhost' identified by 'password123'; grant all privileges on library.\* to 'librarian'@'localhost'; flush privileges;

1. **Revoke the INSERT privilege on the books table from the 'librarian' user.**

* revoke insert on books from 'librarian'@'localhost';