



## INDIAN SCHOOL AL WADI AL KABIR

<b>Class: X</b>	<b>Department: Computer Science</b>	
<b>Worksheet No:2</b>	<b>Topic: Introduction to MYSQL</b>	<b>Note: Answer key</b>

### FILL IN THE BLANKS:

- 1) RDBMS stands for Relational DataBase Management System.
- 2) A Database is a collection of tables.
- 3) A Table is a matrix with data.
- 4) SQL stands for Structured Query Language.
- 5) show databases command is used to list all the databases you have stored.
- 6) use database command is used to open a Database.
- 7) create table command is used to create a table in MySQL.
- 8) show databases command is used to list the available Databases in MySQL.
- 9) drop database name command is used to remove a database from MySQL.
- 10) drop table name command is used to remove a table from MySQL.
- 11) desc tablename command is used to display the structure of a Table.
- 12) distinct clause is used to remove the duplicate values in the table that is associated with select statement.

### SECTION- B

#### MATCH THE FOLLOWING:

1. DELETE - (a) To Check Condition in Displaying Table.
2. ALTER - (b) To display the structure of a Table.
3. FLOAT - (c) To list the available databases in MySQL.
4. DESC - (d) To display the contents of a Table.
5. WHERE - (e) To remove contents of a Table.
6. SELECT - (f) To modify the structure of a Table.
7. SHOW - (g) Numeric Data Type.

**1.e 2.F 3.G 4.b 5.A 6.D 7.C**

## ANSWER TYPE QUESTION

### 1. Define SQL?

SQL is a data access language used to access and manipulate data stored in nearly all the data bases available currently. SQL stands for structured query language. SQL works with database programs like MySQL, MSAccess, DB2, MS SQL Server, Oracle, Sybase, etc.

### 2. Define : Database and DBMS

A database is a collection of information that is organized so that it can easily be accessed, managed, and updated. A DBMS (Data Base Management System) refers to a software that is responsible for storing, maintaining and utilizing databases.

### 3. What do you mean by a Table?

A table is a matrix with data. A table in a database looks like a simple spreadsheet.

### 4. The SQL commands that deals with the manipulation of data present in database belong to DML or Data Manipulation Language and this includes most of the SQL statements.

Syntax of DML Commands:

Select – to retrieve data from a database.	Select * from [table name]; Select [column name1], [column name2].... from [table name];
Inserting data into table	INSERT INTO <i>table-name</i> VALUES ( <i>value1, value2, value3, ...</i> );
Updating the information in an existing table	Update [table name] set C_N= value where condition;
Deleting the table	Delete from [table name];

### 5. What is a row and column in a table?

Column – A column in a table contains data of one and the same kind, for example the column postcode.

Row- A row is a group of related data or a record regarding someone or something. for example, the data of a student. It gives the complete information.

6. Explain update commands with syntax and example.

```
UPDATE [LOW_PRIORITY] [IGNORE] table_name
```

```
SET
```

```
column_name1 = expr1,
```

```
column_name2 = expr2,
```

```
...
```

```
[WHERE
```

```
condition];
```

Sample table demonstration: employees

<b>employees</b>
* employeeNumber
lastName
firstName
extension
email
officeCode
reportsTo
jobTitle

```
UPDATE employees
```

```
SET
```

```
email = 'mary.patterson@classicmodelcars.com'
```

```
WHERE
```

```
employeeNumber = 1056;
```

7. What are the differences between DELETE and DROP commands of SQL?

DELETE is DML command while DROP is a DDL command. Delete is used to delete rows from a table while DROP is used to remove the entire table from the database

8.

MySQL ALTER TABLE – Modify columns

Syntax:

```
ALTER TABLE table_name
```

```
MODIFY column_name column_definition
```

```
[ FIRST | AFTER column_name];
```

Example:

```
ALTER TABLE vehicles
```

MODIFY note VARCHAR (100) NOT NULL;

9. Write any four reasons why MySQL become popular.

- MySQL is released under an open-source license. So you have nothing to pay to use it.
- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.
- MySQL works very quickly and works well even with large data sets.
- MySQL uses a standard form of the well-known SQL data language.

10. What do you mean by DDL and DML?

Data Definition Language (DDL): This is a category of SQL commands. All the commands which are used to create, destroy, or restructure databases and tables come under this category. Examples of DDL commands are -CREATE, DROP, ALTER. Data Manipulation Language (DML): This is a category of SQL commands. All the commands which are used to manipulate data within tables come under this category. Examples of DML commands are - INSERT, UPDATE, DELETE.

11. Give 1 example for aggregate functions (count, max, min, sum).

**MySQL aggregate function – COUNT() function.**

SELECT

COUNT(\*) AS total

FROM

products;

**MySQL aggregate function – SUM() function**

SELECT

productCode,

SUM(priceEach \* quantityOrdered) total

FROM

orderDetails;

### MySQL aggregate function – MAX() function

```
SELECT  
    MAX(buyPrice) highest_price  
FROM  
    products;
```

### MySQL aggregate function – MIN() function

```
SELECT  
    MIN(buyPrice) lowest_price  
FROM  
    products;
```

12. List out the Numeric Data and character Data Types in MySQL.

Numeric Data Types:

INTEGER or INT – up to 11 digit number without decimal.

SMALLINT – up to 5 digit number without decimal.

FLOAT (M,D) or DECIMAL(M,D) or NUMERIC(M,D)

Stores Real numbers upto M digit length (including .) with D decimal places.

e.g. Float (10,2) can store 1234567.89

String or Text Data Type:

CHAR(Size) - A fixed length string up to 255 characters. (default is 1)

VARCHAR(Size) - A variable length string up to 255 characters.

13. Mr. Peter created a table in MySQL. later on he found that there should have been another column in the table. Which command should he use to add another column to the table

ALTER TABLE COMMAND

14.

1) Create a table with following fields with the table name product\_tb

productID	int (10)
productCode	char(3)
name	varchar(30)
quantity	int (10)
price	decimal(7,2)

ANS:- create table product\_tb(productID int(10),productCode char(3),name varchar(30),quantity int(10),price decimal(7,2));

2) write the sql command to insert the following values:

ANS: - insert into product\_tb values (1001,'PEN','PEN RED',5000,1.23);

3) Write the SQL query to display name, price WHERE price < 1.0;

ANS: select name, price from product\_tb where price<1.0;

4) Write the SQL query to display the "name" begins with 'PENCIL'

ANS: select \* from product\_tb where name LIKE "PENCIL%";

5) Write the SQL query to modify quantity column in the table to quantity int(25)

ALTER TABLE product\_tb MODIFY quantity int(25);

6) Write the SQL query to display the "product code " ending with 'EC'

ANS: select \* from product\_tb where name LIKE "%EC";

7) Write the SQL query to display price of products without duplicate values.

ANS: select DISTINCT PRICE from product\_tb;

8) Write the SQL query to count the number of product with product code is PEN.

ANS: select COUNT(PRODUCTCODE) from product\_tb where productcode="pen";

9) Write the SQL query to display the maximum, minimum, average of price and total quantity of all products.

ANS: select MAX(PRICE), MIN(PRICE), AVG(PRICE), SUM(PRICE) from product\_tb;

10) Write the SQL query to update product code to PEC for productID 1002.

ANS: update product\_tb set productcode='PEC' where productID=1002;

11) Write the SQL query to delete the row where productID =1003

ANS: delete from product\_tb where productid=1003;

12) Write the SQL query to add a column discount with datatype float (10,2)

ANS: alter table product\_tb add (discount float (10,2));

13) Write the SQL query to drop the table employee.

ANS: DROP TABLE employee;