

# DBMS Lab-1

## **a. Find year from date**

Ans:- mysql> SELECT YEAR('2024/07/16');

```
+-----+
| YEAR('2024/07/16') |
+-----+
|          2024      |
+-----+
```

## **b. Check whether date passed to query is of given format or not**

Ans:- mysql> SELECT DATE('07/07/2024');

```
+-----+
| DATE('07/07/2024') |
+-----+
| NULL                |
+-----+
```

## **c. Find the size of the SCHEMA/USER.**

Ans:-

```
SELECT table_schema "DB Name",
ROUND(SUM(data_length + index_length) / 1024 / 1024, 1) "DB Size in MB"
FROM information_schema.tables
GROUP BY table_schema;
```

## **d. Display the current time**

Ans:- mysql> SELECT CURTIME();

```
+-----+
| CURTIME() |
+-----+
| 15:08:25  |
+-----+
```

## **e. Given a date retrieve next day's date**

Ans:- mysql> select date\_add('2003/12/11', interval 1 day);

```
+-----+
| date_add('2003/12/11', interval 1 day) |
+-----+
| 2003-12-12                             |
+-----+
```

**f. Get database date**

Ans:- mysql> SELECT CURDATE();

```
+-----+
| CURDATE() |
+-----+
| 2024-07-25 |
+-----+
```

**g. Returns the default(current) database name.**

Ans:- mysql> select database();

```
+-----+
| database() |
+-----+
| NULL      |
+-----+
```

**h. Retrieve the current MySQL user name and host name.**

Ans:- mysql> SELECT USER() AS

'Current User', -> @@hostname

AS 'Host Name';

```
+-----+-----+
| Current User | Host Name      |
+-----+-----+
| root@localhost | nitt-OptiPlex-7470-AIO |
+-----+-----+
```

**i. Find the string that tells the MySQL server version.**

Ans:- mysql> SELECT VERSION();

```
+-----+
| VERSION() |
+-----+
| 8.0.36-0ubuntu0.20.04.1 |
+-----+
```

**j. Perform Bitwise OR, Bitwise XOR and Bitwise AND**

Ans:- mysql> select 3&4, 3|4, 3^4;

```
+-----+
| 3&4 | 3|4 | 3^4 |
+-----+
| 0 | 7 | 7 |
+-----+
```

**k. Find the difference between two dates and print in terms of the number of days.**

Ans:- mysql> select datediff('2003/12/12','2003/12/05');

```
+-----+
| datediff('2003/12/12','2003/12/05') |
+-----+
|                7 |
+-----+
```

**l. Add one day to the current date.**

Ans:- mysql> SELECT DATE\_ADD(CURDATE(), INTERVAL 1 DAY) AS NextDay;

```
+-----+
| NextDay |
+-----+
| 2024-07-26 |
+-----+
```

**m. Add two hours and 5000 minutes to the current date and print the new date.**

Ans:- mysql> SELECT ADDTIME(NOW(), "2:50");

```
+-----+
| ADDTIME(NOW(), "2:50") |
+-----+
| 2024-07-25 18:15:38 |
+-----+
```

**n. Find the floor and ceil values of a floating point number. Also operate on the power, log, modulus, round off and truncate functions.**

Ans:- mysql> select floor(5.3), ceil(5.3);

```
+-----+-----+
| floor(5.3) | ceil(5.3) |
+-----+-----+
|          5 |          6 |
+-----+-----+
```

mysql> SELECT POWER(2, 3), LOG10(100);

```
+-----+-----+
| POWER(2, 3) | LOG10(100) |
+-----+-----+
|            8 |            2 |
+-----+-----+
```

mysql> SELECT MOD(10, 3), ROUND(3.14159, 2), TRUNCATE(3.14159, 2);

```
+-----+-----+-----+
| MOD(10, 3) | ROUND(3.14159, 2) | TRUNCATE(3.14159, 2) |
+-----+-----+-----+
```

1	3.14	3.14
---	------	------

**o. In the first name of the employee, match the following using regular expressions.**

Ans:- mysql> SELECT

```
-> CASE
->     WHEN 'Alice' REGEXP '^a' THEN 'Name starts with a'
->     ELSE 'Name does not start with a'
->     END AS result;
```

result
Name starts with a

**p. Compare two strings and print the value 'yes' if they are equal, else print 'no'.**

Ans:- mysql> SELECT CASE WHEN 'apple' = 'banana' THEN 'yes' ELSE 'no' END AS result;

result
no

**q. Simulate the “IF... ELSE” construct in MySQL for a mark and grade setup.**

Ans:- mysql> SELECT

```
-> 85 AS marks,
-> CASE
->     WHEN 85 >= 90 AND 85 <= 100 THEN 'A'
->     WHEN 85 >= 80 AND 85 < 90 THEN
'B'
->     WHEN 85 >= 70 AND 85 <
80 THEN 'C'
->     WHEN 85 >= 60 AND 85 < 70 THEN 'D'
->     WHEN 85 >= 0 AND 85 < 60 THEN 'F'
->     ELSE 'Invalid marks'
->     END AS grade;
```

marks	grade
85	B

**r. Use IFNULL to check whether a mathematical expression gives a NULL value or not.**

Ans:- mysql> SELECT IFNULL(10 / 5, 'Result is NULL') AS result;

+-----+

| result |

+-----+

| 2.0000 |

+-----+