DBMS Lab 1

a. Find year from date

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

```
mysql> SELECT DATE('07/07/2024');
+-----+
| DATE('07/07/2024') |
+-----+
| NULL |
+------+
```

c. Find the size of the SCHEMA/USER.

```
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

```
mysql> SELECT CURTIME();
+-----+
| CURTIME() |
+-----+
| 15:08:25 |
+------+
```

e. Given a date retrieve next day's date

f. Get database date

```
mysql> SELECT CURDATE();
+-----+
| CURDATE() |
+-----+
| 2024-07-25 |
+-----+
```

g. Returns the default(current) database name.

```
mysql> select database();
+-----+
| database() |
+-----+
| NULL |
+------+
```

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

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.

j. Perform Bitwise OR, Bitwise XOR and Bitwise AND

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. mysql> select datediff('2003/12/12','2003/12/05'); +----+ | datediff('2003/12/12','2003/12/05') | +----+ 7 | +----+ I. Add one day to the current date. 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. 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. 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) |

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

| MOD(10, 3) | ROUND(3.14159, 2) | TRUNCATE(3.14159, 2) |

+-----+ | 8 | 2 | +------

+-----+

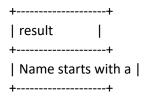
+-----+

```
| 1 | 3.14 | 3.14 |
```

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

mysql> SELECT

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



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

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.

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. mysql> SELECT IFNULL(10 / 5, 'Result is NULL') AS result;
++
result
++
2.0000
++