

Instructions:-

This exam consists of 2 sections.

All questions are compulsory. Total time for this test is 90 minutes.

Connect to MySQL database with your respective username and password.

## Section I (30 marks)

1. Create table DEPT with the following structure:-

```
DEPTNO      int
DNAME       varchar(15)
LOC         varchar(10)
```

Insert the following rows into the DEPT table:-

```
10 ACCOUNTING  NAGPUR
20 RESEARCH    DELHI
30 SALES       KOLKATA
40 OPERATIONS  MUMBAI
```

Answer:

```
Create table DEPT(Deptno int,DNAME varchar(15),LOC Varchar(10));
```

```
insert into DEPT values(10,'ACCOUNTING','NAGPUR');
```

```
insert into DEPT values(20,'RESEARCH','DELHI');
```

```
insert into DEPT values(30,'SALES','KOLKATA');
```

```
insert into DEPT values(40,'OPERATIONS','MUMBAI');
```

```
mysql> select * from dept;
```

Deptno	DNAME	LOC
10	ACCOUNTING	NAGPUR
20	RESEARCH	DELHI
30	SALES	KOLKATA
40	OPERATIONS	MUMBAI

2. Create table EMP with the following structure:-

```
EMPNO      int
ENAME       varchar(10)
JOB         varchar(9)
HIREDATE    date
SAL         float
COMM        float
DEPTNO      int
```

Insert the following rows into the EMP table:-

```
7839 KRISHNA      MANAGER 1991-11-17 5000 NULL 10
7698 BHAVANA      CLERK   1981-05-01 2850 NULL 30
7782 CHETAN        MANAGER 1981-06-09 2450 NULL 10
7566 JAMILA        CLERK   1981-04-02 2975 NULL 20
7654 MAHENDRA     SALESMAN 1981-09-28 1250 1400 30
7499 AJIT         SALESMAN 1981-02-20 1600 300 30
```

Solution:

```
CREATE table EMP(EMPNO int,ENAME varchar(10),JOB varchar(9),HIREDATE date,SAL float,COMM float,DEPTNO int);
```

```
insert into EMP values(7839,'KRISHNA','MANAGER','1991-11-17',5000,NULL,10);
```

```
insert into EMP values(7698,'BHAVANA','CLERK','1981-05-01',2850,NULL,30);
```

```
insert into EMP values(7782,'CHETAN','MANAGER','1981-06-09',2450,NULL,10);
```

```
insert into EMP values(7566,'JAMILA ','CLERK','1981-04-02',2975,NULL,20);
```

```
insert into EMP values(7654,'MAHENDRA','SALESMAN','1981-09-28',1250,1400,30);
```

```
insert into EMP values(7499,'AJIT','SALESMAN','1981-02-20',1600,300,30);
```

```
select * from EMP;
```

```
mysql> select * from EMP;
```

EMPNO	ENAME	JOB	HIREDATE	SAL	COMM	DEPTNO
7839	KRISHNA	MANAGER	1991-11-17	5000	NULL	10
7698	BHAVANA	CLERK	1981-05-01	2850	NULL	30
7782	CHETAN	MANAGER	1981-06-09	2450	NULL	10
7566	JAMILA	CLERK	1981-04-02	2975	NULL	20
7654	MAHENDRA	SALESMAN	1981-09-28	1250	1400	30
7499	AJIT	SALESMAN	1981-02-20	1600	300	30

Write SELECT statements to achieve the following:-

3. Display the JOB column with duplicate values suppressed.

```
mysql> select distinct Job from emp;
```

Job
MANAGER
CLERK
SALESMAN

4. Display the Enames and the corresponding Dnames.

```
mysql> Select ename,dname from emp e,dept d where d.deptno=e.deptno;
```

ename	dname
KRISHNA	ACCOUNTING
BHAVANA	SALES
CHETAN	ACCOUNTING
JAMILA	RESEARCH
MAHENDRA	SALES
AJIT	SALES

5. Show the salaries of all employees rounding it to the nearest 1000.

```
select round()
```

```
mysql> select Round(sal,-3) from emp;
```

Round(sal,-3)
5000
3000
2000
3000
1000
2000

6. Find the names of all employees who do not receive any commission.

```
mysql> select ename from emp where comm is null;
```

ename
KRISHNA
BHAVANA
CHETAN
JAMILA

7. Display the names of all employees right-aligning them to 15 characters.

```
mysql> select rpad(ename,15,'*') from emp;
```

rpad(ename,15,'*')
KRISHNA*****
BHAVANA*****
CHETAN*****

```

| JAMILA***** |
| MAHENDRA***** |
| AJIT***** |
+-----+

```

8. Display the remainder of 9 divided by 5.

```
mysql> select Mod(9,5) from dual;
```

```

+-----+
| Mod(9,5) |
+-----+
|         4 |
+-----+

```

9. Display the minimum SAL jobwise.

```
mysql> select job,min(sal) from emp group by deptno;
```

```

+-----+-----+
| job      | min(sal) |
+-----+-----+
| MANAGER  | 2450     |
| CLERK    | 1250     |
| CLERK    | 2975     |
+-----+-----+

```

10. Display the DNAME and the corresponding ENAME.

All rows of DEPT table are to be displayed even if a particular DEPTNO has no employees.

```
mysql> (select dept.deptno,dept.dname,loc,ename from dept Right outer join emp on
(dept.deptno=emp.deptno))
UNION
(select dept.deptno,dept.dname,loc,ename from dept left outer join emp on
(dept.deptno=emp.deptno));
```

```

+-----+-----+-----+-----+
| deptno | dname      | loc      | ename      |
+-----+-----+-----+-----+
| 10     | ACCOUNTING | NAGPUR   | KRISHNA    |
| 30     | SALES      | KOLKATA  | BHAVANA    |
| 10     | ACCOUNTING | NAGPUR   | CHETAN     |
| 20     | RESEARCH   | DELHI    | JAMILA     |
| 30     | SALES      | KOLKATA  | MAHENDRA   |
| 30     | SALES      | KOLKATA  | AJIT       |
| 40     | OPERATIONS | MUMBAI   | NULL       |
+-----+-----+-----+-----+

```

```
(select * from dept) union (select ename from emp);
```

## Section II

(10 marks)

1. Write a stored procedure by the name of Simp\_intr to calculate the amount of interest on a bank account. The formulae are:-

$$\text{Intr} = p \cdot t \cdot r / 100$$

$$\text{Amt} = p + \text{Intr}$$

where:-

Intr is the total interest earned.

p is the principal, t is the number of years the money is earning interest, and r is the rate of interest.

Your stored procedure should accept the values of p, t and r as parameters and insert the Interest and

Total amount into a suitable TEMPP output table. Calling program for the stored procedure need not be written.

2. Write a stored function by the name of Days\_between.

The stored function should accept 'D1' and 'D2' as date parameters.

The stored function should return the number of days between the two dates.

Calling program for the stored function need not be written.

