LAB-5

Problem Statements:-

1) Create a table called EMP with the given structure.
2) Create a primary key constraint for the table (EMPNO)
3) Define the field DEPTNO as unique.
4) Add constraints to check, minimum salary should be 10000
5) No field should be null
6) Write queries to implement and practice constraints.

1) Create a table called EMP with the given structure.

EMPNO	number(6)
EMPNAME	varchar(20)
JOB	varchar(11)
DEPTNO	number(3)
SAL	number(7,2)

```
SQL> create table emp(empno number(6),empname varchar(20),job varchar(11),deptno number(3),sal
number(7,2));

Table created.

SQL> alter table emp modify empno primary key;

Table altered.

SQL> alter table emp modify deptno unique;

Table altered.

SQL> alter table emp modify sal number(7,2)check(sal>=10000);

Table altered.

SQL> alter table emp modify sal not null;

Table altered.

SQL> alter table emp modify empname not null;

Table altered.

SQL> alter table emp modify job not null;

Table altered.

SQL> alter table emp modify deptno not null;

Table altered.
```

```
SQL> desc emp
 Name                           Null?          Type
 ------------------------------ -------------- ----------------------------
 EMPNO                          NOT NULL       NUMBER(6)
 EMPNAME                        NOT NULL       VARCHAR2(20)
 JOB                            NOT NULL       VARCHAR2(11)
 DEPTNO                         NOT NULL       NUMBER(3)
 SAL                            NOT NULL       NUMBER(7,2)


SQL> insert into emp values('','jon','worker','11','10000');
insert into emp values('','jon','worker','11','10000')
                       *
ERROR at line 1:
ORA-01400: cannot insert NULL into ("SCOTT"."EMP"."EMPNO")


SQL> insert into emp values('1','jon','worker','11','10000');
1 row created.

SQL> insert into emp values('3','rahul','engineer','33','11000');
1 row created.

SQL> insert into emp values('4','ankit','eng','44','11000');
1 row created.


SQL> select * from emp;

    EMPNO EMPNAME              JOB          DEPTNO      SAL
---------- -------------------- ---------- ---------- ----------
         1 jon                  worker             11      10000
         3 rahul                engineer           33      11000
         4 ankit                eng                44      11000
```

LAB-6

Problem Statements:

1. Perform arithmetic operation using Dual
   - Find 12 to the power 2
   - Find 12*12 from dual
   - Find the square root of 81
   - Round off 29.72156 up to 3 decimal places
   - Truncate 29.72156 up to 2 decimal places
   - Find remainder/modulus of 536 by 10

2. Display employee salaries, 2% as TA, 5% as DA, 10% as HRA, 4% as COMM and final salary
3. Display salaries between 11000 and 13000 in ascending order
4. Display employee names and salaries who is getting any one of the following salaries 11000, 13000, 5000
5. Display names of the employees begin with s

1)

```
SQL> select power(12,2) from dual;
 POWER(12,2)
 -----------
         144

SQL> select 12*12 from dual;
    12*12
----------
      144

SQL> select sqrt(81) from dual;
 SQRT(81)
----------
       9

SQL> select round(29.72156,3) from dual;
ROUND(29.72156,3)
-----------------
         29.722

SQL> select trunc(29.72156,2) from dual;
TRUNC(29.72156,2)
-----------------
         29.72

SQL> select 536/10 from dual;
   536/10
----------
     53.6

SQL> select mod(536,10) from dual;
MOD(536,10)
-----------
         6
```

2)

SQL> select * from emp;

EMPNO	EMPNAME	JOB	DEPTNO	SAL
1	jon	worker	11	10000
3	rahul	engineer	33	11000
4	ankit	eng	44	11000
5	abhi	soft eng	55	12000
6	ravi	mc eng	66	90000
77	ruchi	ec eng	77	19000
8	aman	cse eng	88	13000
9	sujit	it eng	99	13000
10	sumit	mc eng	100	13000
2	pinki	ec eng	22	13000

10 rows selected.

SQL> select sal*2/100 as TA,sal*5/100 as DA,sal*10/100 as COM,sal+sal*21/100 as Total_sal from emp;

TA	DA	COM	TOTAL_SAL
200	500	1000	12100
220	550	1100	13310
220	550	1100	13310
240	600	1200	14520
1800	4500	9000	108900
380	950	1900	22990
260	650	1300	15730
260	650	1300	15730
260	650	1300	15730
260	650	1300	15730

10 rows selected.

3)

SQL> select sal,empname from emp where sal between 11000 and 13000 order by sal ASC;

SAL	EMPNAME
11000	ankit
11000	rahul
12000	abhi
13000	sumit
13000	sujit
13000	pinki
13000	aman

7 rows selected.

4)

```
SQL> select sal,empname from emp where sal like(11000);

       SAL EMPNAME
---------- ----------
     11000 rahul
     11000 ankit

SQL> select sal,empname from emp where sal like(13000);

       SAL EMPNAME
---------- ----------
     13000 aman
     13000 sujit
     13000 sumit
     13000 pinki

SQL> select sal,empname from emp where sal like(5000);

no rows selected
```

5)

```
SQL> select * from emp where empname like 's%';

     EMPNO EMPNAME              JOB             DEPTNO       SAL
---------- -------------------- ------------ ---------- ----------
         9 sujit                it eng             99      13000
        10 sumit                me eng            100      13000
```