**1.1)**

SELECT staff\_name, Design\_code FROM staff\_Master WHERE Hiredate<'1-JAN-2003' and staff\_sal between '12000' and '25000';

STAFF\_NAME DESIGN\_CODE

-------------------------------------------------- -----------

Shashi 30

SQL> insert into staff\_Master values(10, 'Bhanu', 23, 2, ('10-JAN-2000'), ('10-NOV-1999'), 'Kalimandir', 19, 20000);

1 row created.

SQL> SELECT staff\_name, Design\_code FROM staff\_Master WHERE Hiredate<'1-JAN-2003' and staff\_sal between '12000' and '25000';

STAFF\_NAME DESIGN\_CODE

-------------------------------------------------- -----------

Shashi 30

Shashank 31

**1.2)**

SELECT sysdate

2 FROM dual

3 ;

SYSDATE

---------

24-JAN-20

SELECT staff\_name, staff\_code, Desihn\_code

2 FROM staff\_Master

3 WHERE sysdate-hiredate>18;

STAFF\_NAME STAFF\_CODE DESIHN\_CODE

-------------------------------------------------- ---------- -----------

Shashank 10 23

Rg 10 23

Shashi 10 23

**1.3)**

insert into staff\_Master values(10, 'Shashank', 12, 13, ('27-Jun-1998'), ('15-Jan-1990'), 'Hyd', null, 20000);

1 row created.

SQL> SELECT staff\_name, staff\_code, Design\_code FROM staff\_Master WHERE Mgr\_code is null;

STAFF\_NAME STAFF\_CODE DESIGN\_CODE

-------------------------------------------------- ---------- -----------

Shashi 10 12

**1.4)**

insert into Book\_Data values(10, 'EMTL&', 2002, 'Varma');

1 row created.

SELECT Book\_code, Book\_name, Book\_pub\_author

2 FROM Book\_Data

3 WHERE Book\_pub\_year between '2001' and '2004' and Book\_name like '%&%';

BOOK\_CODE

----------

BOOK\_NAME

--------------------------------------------------------------------------------

BOOK\_PUB\_AUTHOR

--------------------------------------------------

10

EMTL&

Varma

**1.5)**

insert into staff\_Master values(10, 'shashi', 12, 13, ('17-Jun-1998'), ('16-Jan-1990'), 'Hyd', null, 20000);

SELECT staff\_name

2 FROM staff\_Master

3 WHERE staff\_name like '%\\_%' escape '\';

STAFF\_NAME

--------------------------------------------------

shashi

**2.1.1)**

SELECT staff\_name, lpad(staff\_sal,15,'$')

2 FROM staff\_Master;

STAFF\_NAME LPAD(STAFF\_SAL,15,'$')

-------------------------------------------------- ------------------------------------------------------------

Shashi $$$$$$$$$$20000

Shashank $$$$$$$$$$20000

Rg $$$$$$$$$$20000

Ram $$$$$$$$$$20000

Ganesh $$$$$$$$$$20000

**2.1.5)**

SELECT staff\_name, staff\_sal,

2 case

3 when staff\_sal>=50000 then 'A'

4 When staff\_sal>=25000 and staff\_sal<50000 then 'B'

5 When staff\_sal>=10000 and staff\_sal<25000 then 'C'

6 else

7 'D'

8 end case

9 FROM staff\_Master;

STAFF\_NAME STAFF\_SAL C

-------------------------------------------------- ---------- -

Shashi 20000 C

Shashank 20000 C

Rg 20000 C

Ram 20000 C

Ganesh 20000 C

**2.1.3)**

create table staff\_details(

2 staff\_name varchar(25),

3 months\_worked number(20),

4 id number(5));

Table created.

SQL> insert into staff\_details values('santosh',2,15);

1 row created.

insert into staff\_details values('prasad', 12,18);

1 row created.

SQL> SELECT staff\_name, months\_worked

2 FROM staff\_details order by months\_worked asc;

STAFF\_NAME MONTHS\_WORKED

------------------------- -------------

Santosh 12

Prasad 13

**2.1.7)**

select instr('mississippi','i', 1,3) from dual;

INSTR('MISSISSIPPI','I',1,3)

----------------------------

8

**2.1.6)**

select staff\_name,HireDate, to\_char(hiredate,'dy') as "day" from staff\_Master order by to\_char(hiredate,'d');

STAFF\_NAME HIREDATE day

-------------------------------------------------- --------- ------------

Shashank 10-JAN-00 mon

Shashi 16-Mar-18 fri

**2.1.9)**

select student\_name, student\_code, decode(dept\_code,20,'electricals',30,'electronics') from stu;

STUDENT\_NAME STUDENT\_CODE DECODE(DEPT

-------------------------------------------------- ------------ -----------

a 1 electricals

b 2 electronics

**2..1.2)**

insert into student\_Master values(12, 'sunitha', 2, ('18-JAN-2020'), 'Kalimandir');

1 row created.

SQL> insert into student\_Master values(12, 'Vanitha', 2, ('19-JAN-2020'), 'Kalimandir');

1 row created.

SQL> SELECT student\_name, to\_char(student\_dob, 'month dd yyyy')

2 as student\_dob from student\_Master where

3 to\_char(student\_dob, 'day') like ('%saturday%') or

4 to\_char(student\_dob, 'day') like ('%sunday%');

STUDENT\_NAME

--------------------------------------------------

STUDENT\_DOB

--------------------------------------------

sunitha

january 18 2020

Vanitha

january 19 2020

**2.2.4:**

SQL> insert into staff\_Master values(1, 'a', 25, 19, ('21-JUL-1998'), ('30-JAN-19'), 'aziz nagar', 9, 10000);

1 row created.

SQL> insert into staff\_Master values(2, 'b', 5, 9, ('12-DEC-2000'), ('15-AUG-1928'), 'warangal', 9, 12000);

1 row created.

SQL> insert into staff\_Master values(3, 'c', 29, 7, ('8-DEC-2004'), ('25-JUNE-1976'), 'adilabad', 39, 12500);

1 row created.

SQL> select staff\_name, staff\_code, staff\_address, desihn\_code, dept\_code from staff\_Master where to\_char(hiredate, 'mon')='dec'

2 and to\_char(hiredate, 'dd')<=15;

STAFF\_NAME STAFF\_CODE

-------------------------------------------------- ----------

STAFF\_ADDRESS

--------------------------------------------------------------------------------

DESIHN\_CODE DEPT\_CODE

----------- ----------

a 1

Aziz nagar

25 19

b 2

warangal

5 9

STAFF\_NAME STAFF\_CODE

-------------------------------------------------- ----------

STAFF\_ADDRESS

--------------------------------------------------------------------------------

DESIHN\_CODE DEPT\_CODE

----------- ----------

c 3

adilabad

29 7

**2.1)**

SELECT dept\_code, Round(AVG(staff\_sal)) as "Average", MIN(staff\_sal) as "Minimum", MAX(staff\_sal) as "maximum", SUM(staff\_sal) as "Sum"

2 FROM staff\_Master

3\* Group by dept\_code

SQL> /

DEPT\_CODE Average Minimum maximum Sum

---------- ---------- ---------- ---------- ----------

13 20000 20000 20000 60000

2 20000 20000 20000 100000

8 60000 60000 60000 60000

7 90000 90000 90000 90000

9 85000 80000 90000 170000

19 9000 9000 9000 9000

12 40000 25000 50000 120000

7 rows selected.

**2.2)**

SQL> SELECT design\_code, sum(managers\_no) as "total number of managers"

2 FROM department\_Master

3 group by design\_code;

DESIGN\_CODE total number of managers

----------- ------------------------

10

12 3

**2.3)**

SELECT design\_code, sum(salary)

2 FROM department\_Master

3 group by design\_code

4 HAVING sum(salary)>20000;

DESIGN\_CODE SUM(SALARY)

----------- -----------

13 45000

14 35000

12 25000

**3.1)**

SELECT staff\_name, d.dept\_code, dept\_name, staff\_sal

2 FROM staff\_Master s, department\_Master d

3 WHERE s.dept\_code = d.dept\_code

4 AND staff\_sal>20000;

STAFF\_NAME DEPT\_CODE

-------------------------------------------------- ----------

DEPT\_NAME STAFF\_SAL

-------------------------------------------------- ----------

supraja 12

electronics 45000

supraja 12

electronics 45000

supraja 12

Assistant 45000

STAFF\_NAME DEPT\_CODE

-------------------------------------------------- ----------

DEPT\_NAME STAFF\_SAL

-------------------------------------------------- ----------

purnima 12

electronics 50000

purnima 12

electronics 50000

purnima 12

Assistant 50000

STAFF\_NAME DEPT\_CODE

-------------------------------------------------- ----------

DEPT\_NAME STAFF\_SAL

-------------------------------------------------- ----------

amira 12

electronics 25000

amira 12

electronics 25000

amira 12

Assistant 25000

9 rows selected.

**3.2:**

alter table department\_Master

2 add mgr\_name varchar(7);

Table altered.

alter table department\_Master

2 rename column mgr\_no to mgr\_code;

Table altered.

SQL> desc department\_Master;

Name Null? Type

----------------------------------------- -------- ----------------------------

DEPT\_CODE NOT NULL NUMBER(3)

DEPT\_NAME VARCHAR2(50)

MANAGERS\_NO NUMBER(38)

SALARY NUMBER(38)

MGR\_CODE NUMBER(38)

MGR\_NAME VARCHAR2(7)

insert into department\_master values (2, 'electronics', 3, 24000, 3, 'sunil');

1 row created.

SQL> insert into staff\_master values (2, 'supraja', 3, 4, ('12-jan-1999'), ('12-nov-1994'), 'Kalimandir', 3, 29000);

1 row created.

SQL> select staff\_code as "staff#", staff\_name as "staff", dept\_name, d.mgr\_code as "mgr#", mgr\_name as "manager"

2 FROM staff\_Master s, department\_Master d

3 WHERE s.mgr\_code = d.mgr\_code;

staff# staff

---------- --------------------------------------------------

DEPT\_NAME mgr# manager

-------------------------------------------------- ---------- -------

2 supraja

electronics 3 sunil

**3.3:**

SQL> alter table book\_transactions

2 add book\_name varchar(8);

Table altered.

Name Null? Type

----------------------------------------- -------- ----------------------------

BOOK\_CODE NUMBER

STAFF\_CODE NUMBER

BOOK\_ISSUE\_DATE NOT NULL DATE

BOOK\_EXPECTED\_RETURN\_DATE NOT NULL DATE

BOOK\_ACTUAL\_RETURN\_DATE DATE

STUDENT\_CODE NUMBER(38)

BOOK\_NAME VARCHAR2(8)

SQL> insert into Book\_Transactions values(10, 23, ('12-jan-2020'), ('25-jan-2020'), ('24-jan-2020'), 3, 'physics');

1 row created.

SQL> insert into student\_master values(3, 'harish', 4, ('10-jan-1999'), 'kalimandir');

1 row created.

SQL> Select b.student\_code, student\_name, book\_code, book\_name, book\_expected\_return\_date

2 FROM book\_transactions b, student\_master s

3 WHERE b.student\_code=s.student\_code and book\_expected\_return\_date = ('25-jan-2020');

STUDENT\_CODE STUDENT\_NAME

BOOK\_CODE

------------ -------------------------------------------------- ----------

BOOK\_NAM BOOK\_EXPE

-------- ---------

3 harish

10

physics 25-JAN-20

**3.4:**

SQL> alter table book\_transactions

2 add dept\_name varchar(7);

Table altered.

SQL> alter table book\_transactions

2 add design\_name varchar(8);

Table altered.

SQL> desc book\_transactions;

Name Null? Type

----------------------------------------- -------- ----------------------------

BOOK\_CODE NUMBER

STAFF\_CODE NUMBER

BOOK\_ISSUE\_DATE NOT NULL DATE

BOOK\_EXPECTED\_RETURN\_DATE NOT NULL DATE

BOOK\_ACTUAL\_RETURN\_DATE DATE

STUDENT\_CODE NUMBER(38)

BOOK\_NAME VARCHAR2(8)

DEPT\_NAME VARCHAR2(7)

DESIGN\_NAME VARCHAR2(8)

SQL> insert into book\_transactions values(2, 12, ('12-jan-2020'), ('25\_jan-2020'), ('26-jan-2020'), 12, 'physics', 'ece', 'manager');

1 row created.

SQL> insert into staff\_master values(12, 'supraja', 2, 3, ('12-jan-1996'), ('10-jan-1989'), 'kalimandir', 3, 34000);

1 row created.

SQL> SELECT b.staff\_code, staff\_name, dept\_name, design\_name, book\_code, book\_name, book\_issue\_date

2 from book\_transactions b, staff\_Master s

3 WHERE b. staff\_code = s.staff\_code and to\_char(sysdate-book\_issue\_date)<30;

STAFF\_CODE STAFF\_NAME DEPT\_NA DESIGN\_N

---------- -------------------------------------------------- ------- --------

BOOK\_CODE BOOK\_NAM BOOK\_ISSU

---------- -------- ---------

12 supraja ece manager

2 physics 12-JAN-20

12 supraja ece manager

2 physics 12-JAN-20

**3.5:**

SQL> alter table Book\_transactions

2 add book\_fine int;

Table altered.

SQL> insert into book\_transactions values(2, 12, ('12-jan-2020'), ('20-jan-2020'), ('25-jan-2020'), 12, 'physics', 'ece', 'manager',5);

1 row created.

SELECT b.staff\_code, staff\_name, design\_name, dept\_name, book\_code, book\_name, book\_fine, 5\*(sysdate-b.book\_actual\_return\_date)

2 as book\_fine

3 FROM staff\_master s, book\_transactions b

4 Where s.staff\_code=b.staff\_code;

STAFF\_CODE STAFF\_NAME DESIGN\_N DEPT\_NA

---------- -------------------------------------------------- -------- -------

BOOK\_CODE BOOK\_NAM BOOK\_FINE BOOK\_FINE

---------- -------- ---------- ----------

12 supraja manager ece

2 physics 5 -1.673669

12 supraja manager ece

2 physics 5 -1.673669

12 supraja manager ece

2 physics -1.673669

**3.7:**

> alter table book\_transactions

2 add book\_nos int;

Table altered.

SQL> desc book\_transactions;

Name Null? Type

----------------------------------------- -------- ----------------------------

BOOK\_CODE NUMBER

STAFF\_CODE NUMBER

BOOK\_ISSUE\_DATE NOT NULL DATE

BOOK\_EXPECTED\_RETURN\_DATE NOT NULL DATE

BOOK\_ACTUAL\_RETURN\_DATE DATE

STUDENT\_CODE NUMBER(38)

BOOK\_NAME VARCHAR2(8)

DEPT\_NAME VARCHAR2(7)

DESIGN\_NAME VARCHAR2(8)

BOOK\_FINE NUMBER(38)

BOOK\_AUTHOR VARCHAR2(20)

BOOK\_NOS NUMBER(38)

SQL> insert into book\_transactions values(2, 12, ('12-jan-2020'), ('20-jan-2020'), ('25-jan-2020'), 12, 'DC', 'ece', 'Hr',5,'Bakshi', 4);

1 row created.

SQL> insert into book\_transactions values(2, 12, ('12-jan-2020'), ('20-jan-2020'), ('25-jan-2020'), 12, 'STLD', 'ece', 'manager',5,'anand', 10);

1 row created.

SQL> SELECT book\_author, book\_name

2 From book\_transactions

3 WHERE book\_nos >1;

BOOK\_AUTHOR BOOK\_NAM

-------------------- --------

Bakshi dc

Anand stld

**3.6)**

SQL> SELECT staff\_code, staff\_sal

2 FROM staff\_Master

3 WHERE staff\_sal < ANY(SELECT AVG(staff\_sal)

4 FROM staff\_master GROUP BY dept\_code);

STAFF\_CODE STAFF\_SAL

---------- ----------

10 20000

10 20000

10 20000

10 20000

10 20000

10 20000

10 20000

10 20000

3 60000

4 80000

1 9000

STAFF\_CODE STAFF\_SAL

---------- ----------

12 45000

13 50000

14 25000

2 29000

12 34000

16 rows selected.

**4.1)**

SQL> create table customer(

2 customerid number(5),

3 cust\_name varchar2(20),

4 address1 varchar2(30),

5 address varchar2(30));

Table created.

SQL> desc customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMERID NUMBER(5)

CUST\_NAME VARCHAR2(20)

ADDRESS1 VARCHAR2(30)

ADDRESS2 VARCHAR2(30)

SQL> insert into customer values(2, 'hari', 'Hyd', 'Pune');

**4.2)**

SQL> alter table customer

2 MODIFY (cust\_name varchar2(30));

Table altered.

SQL> desc customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMERID NUMBER(5)

CUST\_NAME VARCHAR2(30)

ADDRESS1 VARCHAR2(30)

ADDRESS2 VARCHAR2(30)

SQL> alter table customer

2 rename column cust\_name to customername;

Table altered.

SQL> desc customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMERID NUMBER(5)

CUSTOMERNAME VARCHAR2(30)

ADDRESS1 VARCHAR2(30)

ADDRESS2 VARCHAR2(30)

**4.3(a):**

SQL> alter table customer

2 add gender varchar2(1);

Table altered.

SQL> alter table customer

2 add age number(3);

Table altered.

SQL> alter table customer

2 add phoneno number(10);

Table altered.

SQL> desc customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMERID NUMBER(5)

CUSTOMERNAME VARCHAR2(30)

ADDRESS1 VARCHAR2(30)

ADDRESS2 VARCHAR2(30)

GENDER VARCHAR2(1)

AGE NUMBER(3)

PHONENO NUMBER(10)

**4.3(b):**

SQL> rename customer TO cust\_table;

Table renamed.

SQL> desc cust\_table;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMERID NUMBER(5)

CUSTOMERNAME VARCHAR2(30)

ADDRESS1 VARCHAR2(30)

ADDRESS2 VARCHAR2(30)

GENDER VARCHAR2(1)

AGE NUMBER(3)

PHONENO NUMBER(10)

**4.4)**

L> insert into cust\_table values(10, 'allen', '#115Chicago', '#115Chicago', 'M', 25, 7878776);

1 row created.

SQL> insert into cust\_table values(1001, 'George', '#116France', '#116France', 'M', 25, 434524);

1 row created.

SQL> insert into cust\_table values(1002, 'Becker', '#114New York', '#114New York', 'M', 45, 431525);

1 row created.

select \* from cust\_table;

CUSTOMERID CUSTOMERNAME ADDRESS1

---------- ------------------------------ ------------------------------

ADDRESS2 G AGE PHONENO

------------------------------ - ---------- ----------

2 veenesh srnagar

sanathnagar

2 veenesh srnagar

sanathnagar

1000 allen #115Chicago

#115Chicago M 25 7878776

CUSTOMERID CUSTOMERNAME ADDRESS1

---------- ------------------------------ ------------------------------

ADDRESS2 G AGE PHONENO

------------------------------ - ---------- ----------

1001 George #116France

#116France M 25 434524

1002 Becker #114New York

#114New York M 45 431525

**4.5)**

SQL> alter table cust\_table add constraint custid\_prim primary key(customerid);

Table altered.