UCT-402

DATABASE MANAGEMENT SYSTEMS

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Assignment: 1

Question 1:

```
1   create table student(
2   RollNo Number(9),
3   Name Char(25),
4   DOB Date,
5   Gender char(1),
6   Class char(5),
7   College char(50),
8   City char(20),
9   Marks number(3));
```

```
Table created.
```

Question 2:

```
11  insert into student values(102003088,'Divija Arora','28-SEP-2002','M','COEBE','
12  insert into student values(102003087,'Anushka','22-APR-2002','M','COEBE','TIET'
13  insert into student values(102003089,'Himanshi','20-SEP-2001','M','COEBE','TIET
14  insert into student values(102003086,'Rishi Malik','2-JAN-2000','M','COEBE','TI
15  insert into student values(102003085,'Ravisha','8-FEB-2002','M','COEBE','TIET',
16
17
18
19
```
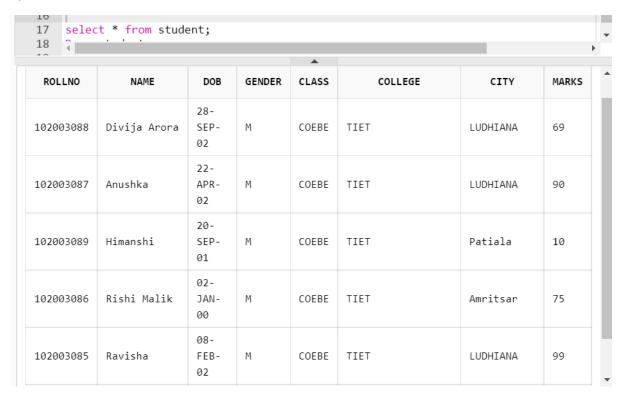
```
1 row(s) inserted.


1 row(s) inserted.
```
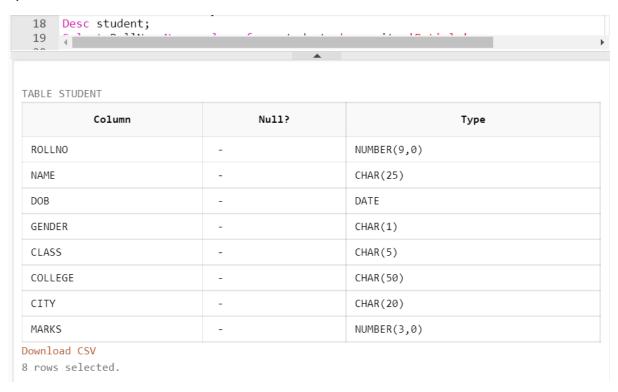
Question 3:

```
16
17   select * from student;
18
```

ROLLNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
102003088	Divija Arora	28-SEP-02	M	COEBE	TIET	LUDHIANA	69
102003087	Anushka	22-APR-02	M	COEBE	TIET	LUDHIANA	90
102003089	Himanshi	20-SEP-01	M	COEBE	TIET	Patiala	10
102003086	Rishi Malik	02-JAN-00	M	COEBE	TIET	Amritsar	75
102003085	Ravisha	08-FEB-02	M	COEBE	TIET	LUDHIANA	99

Question 4:

```
18   Desc student;
19
```

TABLE STUDENT

Column	Null?	Type
ROLLNO	-	NUMBER(9,0)
NAME	-	CHAR(25)
DOB	-	DATE
GENDER	-	CHAR(1)
CLASS	-	CHAR(5)
COLLEGE	-	CHAR(50)
CITY	-	CHAR(20)
MARKS	-	NUMBER(3,0)

Download CSV

8 rows selected.

Question 5:

```
18    Desc student;
19    Select RollNo, Name, class from student where city='Patiala';
20
```

ROLLNO	NAME	CLASS
102003089	Himanshi	COEBE

Download CSV

Question 6:

```
20    Select * from student order by Marks;
21
```

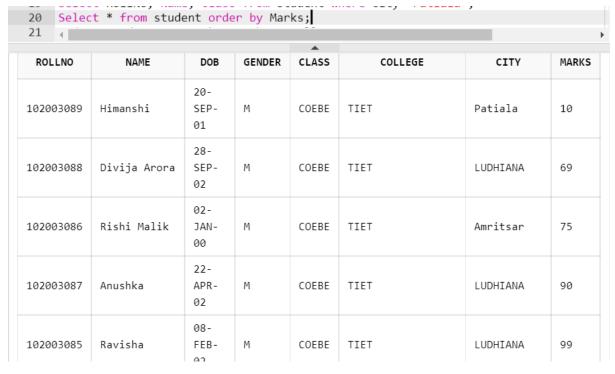| ROLLNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
102003089	Himanshi	20-SEP-01	M	COEBE	TIET	Patiala	10
102003088	Divija Arora	28-SEP-02	M	COEBE	TIET	LUDHIANA	69
102003086	Rishi Malik	02-JAN-00	M	COEBE	TIET	Amritsar	75
102003087	Anushka	22-APR-02	M	COEBE	TIET	LUDHIANA	90
102003085	Ravisha	08-FEB-02	M	COEBE	TIET	LUDHIANA	99

Question 7:

```
20    Select * from student order by Marks;
21    Update student set marks=89 where RollNo=102003085;
22
```

1 row(s) updated.

Question 8:

```
22   Update student set Name='changed', City='Jaipur' where RollNo=102003089;
23
```

```
1 row(s) updated.
```

Question 9:

```
23   DELETE from student where City='Amritsar';
24
```

```
1 row(s) deleted.
```

Question 10:

```
24   DELETE from student where Marks<=30;
25
```

```
1 row(s) deleted.
```

Assignment: 2

Question 1:

```
26
27    create table Emp(
28    Empno Number(5),
29    Ename Char(25),
30    Job Char(25),
31    Salary Number(6),
32    DeptNo Number(5));
33
34    |
35
```

Table created.

Question 2:

```
34
35    Insert into Emp values(1,'Abc Xyz','Slave',200,10);
36    Insert into Emp values(2,'Can Grill','Manager',2500,9);
37    Insert into Emp values(3,'Man Ape','Monke',4200,4200);
38    Insert into Emp values(4,'Usain Bolt','Runner',69000,20);
39    Insert into Emp values(5,'Pro Art','Designer',69,69);
40    Insert into Emp values(6,'Boss Baby','Clerk',20000,30);
41    Insert into Emp values(7,'Napkin Man','Salesperson',500,40);|
42    Insert into Emp values(8,'Alia Blyat','Failed actor',NULL,707);
43
```

1 row(s) inserted.

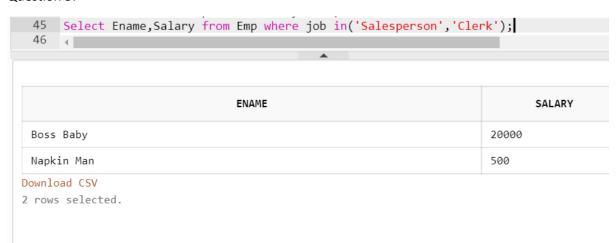1 row(s) inserted.

1 row(s) inserted.

Question 3:

```
43    Select Empno,Ename from Emp where deptno=10;
44
```

EMPNO	ENAME
1	Abc Xyz

Download CSV

Question 4:

```
44    Select Ename from emp where salary>2000;
45
```

ENAME
Can Grill
Man Ape
Usain Bolt
Boss Baby

Download CSV
4 rows selected.

Question 5:

```
45    Select Ename,Salary from Emp where job in('Salesperson','Clerk');
46
```

ENAME	SALARY
Boss Baby	20000
Napkin Man	500

Download CSV
2 rows selected.

Question 6:

```
46    Select * from Emp where salary between 2000 and 3000;
47
```

EMPNO	ENAME	JOB	SALARY	DEPTNO
2	Can Grill	Manager	2500	9

Download CSV

Question 7:

```
47    Select * from Emp where Deptno in(10,20,30);
48
```

EMPNO	ENAME	JOB	SALARY	DEPTNO
1	Abc Xyz	Slave	200	10
4	Usain Bolt	Runner	69000	20
6	Boss Baby	Clerk	20000	30

Download CSV

Question 8 :

```
48    Select ename from emp where salary is NULL;
49
```

ENAME
Alia Blyat

Download CSV

Question 9:

```
49   Select deptno,salary from emp order by deptno,salary desc;
50
```

DEPTNO	SALARY
9	2500
10	200
20	69000
30	20000
40	500
69	69
707	-
4200	4200

Question 10 :

```
49   Select deptno,salary from emp order by deptno,salary desc;
50   Select ename from emp where ename like 'C%';
51
```

ENAME
Can Grill

Download CSV

Question 11 and 12:

```
51   Select ename from emp where ename
52   like '%a%a%' or ename like '%A%A%' or ename like '%A%a%';
53
```

ENAME
Napkin Man
Alia Blyat

Download CSV

Question 13:

```
53  Select ename from emp where ename like '_b%' or ename like '_B%';
54
```

ENAME
Abc Xyz

Download CSV

Question 14:

```
54  Select ename from emp where ename
55  like 'a%' or ename like 'A%' or ename
56  like '%a' or ename like '%A';
57
```

ENAME
Abc Xyz
Alia Blyat

Download CSV
2 rows selected.

Assignment: 3

Question 1:

```
 7
 8   SELECT * FROM dep;
 9   CREATE TABLE emp(
10   empno NUMBER(2) PRIMARY KEY,
11   ename VARCHAR(20) UNIQUE ,
12   job varchar(15) Check(job IN ('Prof','AP','Lect')),
13   sal NUMBER(5) not null,
14   deptno NUMBER(2) references dep(deptno));
```

```
Table created.
```

Question 2:

```
16
17   CREATE TABLE dept(
18   deptno NUMBER(3) PRIMARY KEY,
19   dname VARCHAR(5) CHECK (dname IN('Acc','comp','elect')));
20
```

```
Table created.
```

Question 3:

```
21
22   CREATE  TABLE S(sno NUMBER(5) PRIMARY KEY,sname VARCHAR(20),city VARCHAR(10));
```

```
Table created.
```

Question 4:

```
24
25   CREATE   TABLE P(pno NUMBER(5) PRIMARY KEY,pname VARCHAR(20),colour VARCHAR(10));
26
27
```

Table created.

Question 5:

```
27  |
28   CREATE   TABLE J(jno NUMBER(5) PRIMARY KEY,jname VARCHAR(20),city VARCHAR(10));
29
```

Table created.

Question 6:

```
30
31   CREATE TABLE SPJ(sno NUMBER(5) references S(sno)
32   pno NUMBER(5) references P(pno), |
33   jno NUMBER(5) references J(jno));
```

Table created.

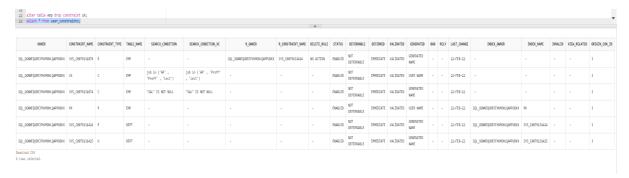Question 7 : records inserted in assignment 6

Assignment: 4

Question 1:

```
1   create table dept(
2   deptno Number(2) primary key,
3   dpetname Varchar(15) unique);
4
5   insert into dept values(10,'A');
6   insert into dept values(20,'B');
7   insert into dept values(30,'C');
8
9   create table emp
10  (
11  empno Number(5) constraint pk primary key,
12  ename varchar(20) constraint uk unique,
13  job varchar(20) constraint ck check(job in ('AP' , 'Proff' , 'Lect')),
14  sal number(5) not null,
15  deptno number(5) references dept(deptno)
16  );
17
18  describe emp;
```

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER(5,0)
ENAME	-	VARCHAR2(20)
JOB	-	VARCHAR2(20)
SAL	NOT NULL	NUMBER(5,0)
DEPTNO	-	NUMBER(5,0)

Download CSV

Question 2:

Question 3:

```
22  alter table emp drop constraint uk;
23  select * from user_constraints;
```

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	SEARCH_CONDITION_VC	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	DEFERRED	VALIDATED	GENERATED	BAD	RELY	LAST_CHANGE	INDEX_OWNER	INDEX_NAME	INVALID	VIEW_RELATED	ORIGIN_CON_ID
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111878	R	EMP	-	-	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	CK	C	EMP	job in ('AP', 'Proff', 'lect')	job in ('AP', 'Proff', 'lect')	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111874	C	EMP	"SAL" IS NOT NULL	"SAL" IS NOT NULL	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	PK	P	EMP	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	PK	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	P	DEPT	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111425	U	DEPT	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111425	-	-	3

Download CSV
6 rows selected.

Question 4:

```
25  alter table emp drop constraint SYS_C0079111878;
26  select * from user_constraints;
27
```

Table altered.

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	SEARCH_CONDITION_VC	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	DEFERRED	VALIDATED	GENERATED	BAD	RELY	LAST_CHANGE	INDEX_OWNER	INDEX_NAME	INVALID	VIEW_RELATED	ORIGIN_CON_ID
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	CK	C	EMP	job in ('AP', 'Proff', 'lect')	job in ('AP', 'Proff', 'lect')	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111874	C	EMP	"SAL" IS NOT NULL	"SAL" IS NOT NULL	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	PK	P	EMP	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	PK	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	P	DEPT	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111425	U	DEPT	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111425	-	-	3

Download CSV
5 rows selected.

Question 5:

```
28  alter table emp add foreign key(deptno) references dept(deptno);
29  select * from user_constraints;
30
```

Table altered.

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	SEARCH_CONDITION_VC	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	DEFERRED	VALIDATED	GENERATED	BAD	RELY	LAST_CHANGE	INDEX_OWNER	INDEX_NAME	INVALID	VIEW_RELATED	ORIGIN_CON_ID
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079113828	R	EMP	-	-	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	CK	C	EMP	job in ('AP', 'Proff', 'lect')	job in ('AP', 'Proff', 'lect')	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111874	C	EMP	"SAL" IS NOT NULL	"SAL" IS NOT NULL	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	-	-	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	PK	P	EMP	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	PK	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	P	DEPT	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111424	-	-	3
SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111425	U	DEPT	-	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME	-	-	22-FEB-22	SQL_OGNNFQUDR3FHVMOHLQAPPUDKX	SYS_C0079111425	-	-	3

Download CSV
6 rows selected.

Question 6:

```
31  alter table emp modify ename varchar(40);
32  describe emp;
33
34
```

Table altered.

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER(5,0)
ENAME	-	VARCHAR2(40)
JOB	-	VARCHAR2(20)
SAL	NOT NULL	NUMBER(5,0)
DEPTNO	-	NUMBER(5,0)

Download CSV
5 rows selected.

Question 7:

```
34   alter table dept modify dpetname varchar(20);
35   describle dept;
36
```

TABLE DEPT

Column	Null?	Type
DEPTNO	NOT NULL	NUMBER(2,0)
DPETNAME	-	VARCHAR2(20)

Download CSV

2 rows selected.

Question 8:

```
37   alter table emp add comm varchar(10);
38   describe emp;
```

Table altered.

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER(5,0)
ENAME	-	VARCHAR2(40)
JOB	-	VARCHAR2(20)
SAL	NOT NULL	NUMBER(5,0)
DEPTNO	-	NUMBER(5,0)
COMM	-	VARCHAR2(10)

Download CSV

6 rows selected.

Question 9:

```
2   select ename, salary, depno from emp where salary in (select max(salary) from emp group by depno);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10

Download CSV

3 rows selected.

Question 10:

```
39
40   create table empc as select * from emp;
41   describle empc;
42   |
```

TABLE EMPC

Column	Null?	Type
EMPNO	-	NUMBER(5,0)
ENAME	-	VARCHAR2(40)
JOB	-	VARCHAR2(20)
SAL	NOT NULL	NUMBER(5,0)
DEPTNO	-	NUMBER(5,0)
COMM	-	VARCHAR2(10)

Download CSV
6 rows selected.

Question 11:

```
21   create table deptn(
22   ndeptno , ndeptname
23   ) as select deptno , dpetname from dept;
24   describe deptn;
25   describe dept;
```

TABLE DEPTN

Column	Null?	Type
NDEPTNO	-	NUMBER(2,0)
NDEPTNAME	-	VARCHAR2(15)

Download CSV
2 rows selected.

TABLE DEPT

Column	Null?	Type
DEPTNO	NOT NULL	NUMBER(2,0)
DPETNAME	-	VARCHAR2(15)

Download CSV
2 rows selected.

Question 12:

```
27   update emp set ename ='Raj' , job = 'Proff' where empno = 001;
```

1 row(s) updated.

Question 13:

```
15
16    DELETE FROM dep WHERE deptname='comp';
17
```

0 row(s) deleted.

```
1
2    select ename, salary, depno from emp where salary in (select max(salary) from emp group by depno);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10

Download CSV
3 rows selected.

Question 14:

```
20
21   drop table dept;
```

Table dropped.

Question 15:

```
34   drop table empc;
```

Table dropped.

Assignment :5

Question 1:

```
4      .                                 ,    ,   ,
5    create table emp
6    (
7    empno Number(5) constraint pk primary key,
8    ename varchar(20) constraint uk unique,
9    job varchar(20) constraint ck check(job in ('AP' , 'Proff' , 'Lect')),
10   sal number(5) not null,
11   deptno number(5) references dept(deptno)
12   );
13
14   insert into dept values(10,'A');
15   insert into dept values(20,'C');
16   insert into dept values(30,'B');
17
18   insert into emp values(001,'juhi' , 'Proff' ,2000 , 20);
19   insert into emp values(002,'Ruhi' , 'AP' ,2000 , 20);
20   insert into emp values(003,'Muhi' , 'Lect' ,3000 , 10);
21   insert into emp values(004,'Luhi' , 'Proff' ,2500 , 30);
22   insert into emp values(005,'Nuhi' , 'Lect' ,2600 , 10);
23
24   SELECT COUNT(*)FROM emp;
```

COUNT(*)
5

Download CSV

Question 2:

```
25
26   SELECT deptno, COUNT(*) FROM emp GROUP BY deptno;
```

DEPTNO	COUNT(*)
30	2
10	2
20	1

Download CSV

3 rows selected.

Question 3:

```
28   SELECT job, SUM(sal), AVG(sal), MAX(sal), MIN(sal)
29   FROM emp
30   WHERE deptno = '30'
31   GROUP BY job;
```

JOB	SUM(SAL)	AVG(SAL)	MAX(SAL)	MIN(SAL)
AP	3500	3500	3500	3500
Proff	2500	2500	2500	2500

Download CSV

2 rows selected.

Question 4:

```
33    select *from emp where sal=(select Max(sal) from emp);
```

EMPNO	ENAME	JOB	SAL	DEPTNO
6	Puhi	AP	3500	30

Download CSV

Question 5:

```
35    SELECT deptno, SUM(sal)
36   FROM emp
37   GROUP BY deptno;
```

DEPTNO	SUM(SAL)
30	6000
10	5600
20	2000

Download CSV

3 rows selected.

Question 6:

```
39
40   SELECT job, SUM(sal)
41   FROM emp
42   GROUP BY job;
```

JOB	SUM(SAL)
Lect	5600
AP	5500
Proff	2500

Download CSV

3 rows selected.

Question 7:

```
20
21   select deptno , job , sum(sal) as "total_sal"
22   from emp
23   group by deptno , job ;
```

DEPTNO	JOB	total_sal
20	Proff	3000
30	AP	2500
20	Lect	3500
10	AP	2000

Download CSV

Question 8:

```
25   select job , avg(sal)
26   from emp
27   where deptno = 20
28   group by job;
```

JOB	AVG(SAL)
Lect	3500
Proff	3000

Download CSV

2 rows selected.

Question 9:

```
30  select job , sum(sal)
31  from emp
32  where job <> 'Proff'
33  group by job;
```

JOB	SUM(SAL)
Lect	3500
AP	4500

Download CSV
2 rows selected.

Question 10:

```
35  select job , avg(sal) as sal
36  from emp
37  where deptno = 20
38  group by job
39  having sum(sal) >2000
40  order by sal desc;
41
42
```

JOB	SAL
Lect	3500
Proff	3000

Download CSV
2 rows selected.

Question 11:

```
41
42  select count(*),JOB
43  FROM EMP
44  WHERE DEPTNO <> 10
45  GROUP BY JOB
46  HAVING COUNT(*)>5
47  ORDER BY COUNT(*) DESC;
```

no data found

Question 12 : NA

Question 13:

```
48
49    select job , count(*) from emp where job = 'Proff' group by job
50
```

JOB	COUNT(*)
Proff	1

Download CSV

Question 14:

```
25
26    SELECT deptno, COUNT(*) FROM emp GROUP BY deptno;
```

DEPTNO	COUNT(*)
30	2
10	2
20	1

Download CSV
3 rows selected.

Question 15 :

```
select count(*) from emp where job = 'Prof' and deptno = 1
```

COUNT(*)
1

Download CSV

Question 16:

```
select deptno, count(*) from emp where job = 'Prof' group by deptno
```

DEPTNO	COUNT(*)
1	1

Download CSV

Question 17:

```
17   select count(*), city from student group by city;
```

COUNT(*)	CITY
3	pta
1	del
2	jal

Download CSV

Question 18:

```
select city from student
group by city having count(*)=(select max(count(*))
from student group by city)
```

CITY
pta

Download CSV

Question 19:

```
23
24   select min(mycount) from ( select institute, count(institute) mycount
25   from student group by institute);
```

MIN(MYCOUNT)
1

Download CSV

INSTITUTE
pu
pec

Download CSV

Question 20:

```
select institute from student
where marks in (select max(marks) from student )
```

INSTITUTE
tu
pu

Download CSV

2 rows selected.

Question 21:

```
select institute from student
where institute <>'tu' group by institute
```

INSTITUTE
pu
pec

Download CSV

2 rows selected.

Question 22:

```
select institute as Institute
from student
where marks=(select max(marks) from student)
```

INSTITUTE
tu
pu

Download CSV

2 rows selected.

Assignment: 6

Statement 2

🗑 Edit

```
create table S
(
sno number(5) constraint prk primary key,
sname varchar(20),
city varchar(30)
)
```

Table created.

Statement 3

🗑 Edit

```
create table P
(
pno number(5) constraint prkey primary key,
pname varchar(20),
```

Statement 4

🗑 Edit

```
create table J
(
jno number(5) constraint prikey primary key,
jname varchar(20),
city varchar(30)
)
```

Table created.

Statement 5

🗑 Edit

```
create table SPJ
(
sno number(10) references s(sno),
pno number(10) references p(pno),
jno number(10) references j(jno),
qty number(10),
primary key (sno, pno, jno)
)
```

Table created.

Statement 6

🗑 Edit

```
create table SP
(
sno number(10) references s(sno),
pno number(10) references p(pno),
qty number(10),
primary key (sno, pno)
)
```

Table created.

Statement 7

🗑 Edit

insert into S values(2, 'mouse', 'barnala')

1 row(s) inserted.

Statement 8

🗑 Edit

insert into P values(3, 'mouse', 'barnala')

1 row(s) inserted.

Statement 9

🗑 Edit

insert into J values(1, 'mouse', 'barnala')

1 row(s) inserted.

Statement 10

🗑 Edit

insert into SP values(2,3,1)

Question 1:

```
select count(distinct(sno)) from spj where qty<>0
```

COUNT(DISTINCT(SNO))
1

Download CSV

Question 2:

```
select sname from S,SPJ where S.sno=SPJ.sno and SPJ.qty>(select avg(qty) from SPJ)
```

SNAME
display

Download CSV

Question 3:

```
SELECT SUM(qty) FROM SPJ GROUP BY sno
```

| 22 |
| 23 |

Download CSV

3 rows selected.

Question 4:

```
SELECT pname, sum(qty) FROM P,SPJ WHERE P.pno = SPJ.pno group by pname
```

PNAME	SUM(QTY)
mouse	66

Download CSV

Question 5,6,7,8,9:

```
select count(*) , sname from S, SPJ where S.sno = SPJ.sno and S.city not in 'patiala' gro
```

no data found

```
select count(*) , sname from S, SPJ where S.sno = SPJ.sno and S.city not in 'patiala' gro
```

no data found

```
select SPJ.sno ,P.pno,qty from P,SPJ where P.pno=SPJ.pno and colour in('red')
```

no data found

```
select sname from S where sno in (select sno from P, SPJ where P.pno = SPJ.pno and colour
```

no data found

```
select sname, pname from S, P where sname in (select sname from S, SPJ where S.sno = SPJ.
```

no data found

Question 10:

```
select sname, pname from S, P where sname in (select sname from S, SPJ where S.sno = SPJ.
```

SNAME	PNAME
mouse	mouse
keyboard	mouse
display	mouse

Download CSV

3 rows selected.

Question 11:

```
select S.sno, SPJ.sno, city from S, SPJ where S.sno = SPJ.sno
```

1	1	bnn
2	2	barnala
3	3	patiala

Download CSV

3 rows selected

Question 12:

```
select S.sno, SPJ.sno, city from S, SPJ where S.sno = SPJ.sno
```

SNO	SNO	CITY
1	1	bnn
2	2	barnala
3	3	patiala

Download CSV

3 rows selected.

Question 13:

```
select sname from S where sno in (select sno from SPJ, P where P.pno = SPJ.pno and P.pno
```

no data found

```
select sname from S where sno in (select sno from SPJ, P where P.pno = SPJ.pno and P.pno
```

SNAME
keyboard
mouse
display

Download CSV
3 rows selected.

Question 14:

```
select sno from S where city = (select city from S where sno = '2')
```

SNO
2

Download CSV

Question 15:

```
select sno from S where city = (select city from S where sno = '1')
```

SNO
1

Download CSV

```
select sno from S where city = (select city from S where sno = '3')
```

SNO
3
4

Download CSV
2 rows selected.

Question 16:

```
select pname, pno from P,S where S.city = 'patiala'
```

PNAME	PNO
mouse	3
mouse	3

Download CSV
2 rows selected.

Question 17:

```
select P.pno, pname from P, SPJ where P.pno = SPJ.pno and sno in (select sno from S where
```

Question 18:

```
select sname from S where sno <> (select sno from SPJ, P where P.pno = SPJ.sno and P.pno=
```

SNAME
mouse
keyboard
CPU

Download CSV
3 rows selected.

Assignment: 7

Question 1:

```
14   insert into dept values(10,'A');
15   insert into dept values(20,'B');
16   insert into dept values(30,'C');
17
18   insert into emp values(001,'Ajay', 'Clerk' ,20000 , 10);
19   insert into emp values(002,'Sham', 'Manager' ,30000 , 20);
20   insert into emp values(003,'Ram', 'employee' ,15000 , 30);
21   insert into emp values(004,'Laxman', 'Clerk' ,20000 , 10);
22   insert into emp values(005,'Bharat', 'Manager' ,30000 , 20);
23   insert into emp values(006,'Sita', 'employee' ,14000 , 30);
24
25   select ename from emp
26   where deptno =
27   (select deptno from emp where ename = 'Ajay')
28
29
```

ENAME
Ajay
Laxman

Download CSV
2 rows selected.

Question 2

```
28
29   select ename from emp
30   where job = (select job from emp where ename ='Ajay')
31
32
```

ENAME
Ajay
Laxman

Download CSV
2 rows selected.

Question 3:

```
32    select * from emp order by sal desc fetch first 5 rows only
33
34
```

EMPNO	ENAME	JOB	SAL	DEPTNO
5	Bharat	Manager	30000	20
2	Sham	Manager	30000	20
1	Ajay	Clerk	20000	10
4	Laxman	Clerk	20000	10
3	Ram	employee	15000	30

Download CSV

Question 4:

```
34    select * from emp order by sal fetch first 5 rows only
```

EMPNO	ENAME	JOB	SAL	DEPTNO
6	Sita	employee	14000	30
3	Ram	employee	15000	30
1	Ajay	Clerk	20000	10
4	Laxman	Clerk	20000	10
5	Bharat	Manager	30000	20

Download CSV

Question 5:

```
35
36    select * from emp where job = 'Manager' and empno = 002
37
38
```

EMPNO	ENAME	JOB	SAL	DEPTNO
2	Sham	Manager	30000	20

Download CSV

Question 6 :

```
36  select ename from emp where sal < any
37  (select sal from emp where job = 'Clerk')
38  and job <> 'Clerk'
39  ◂
```

ENAME
Sita
Ram

Download CSV

2 rows selected.

Question 7:

```
43  select job from emp where sal = (select  max(sal) from emp)
44
45  ◂
```

JOB
Manager
Manager

Download CSV

2 rows selected.

Question 8:

```
2  select ename, salary, depno from emp where salary in (select max(salary) from emp group by depno);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10

Download CSV

3 rows selected.

Question 9:

```
2   select ename, salary, depno from emp where salary in (select max(salary) from emp group by depno);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10

Download CSV
3 rows selected.

Question 10: Repeat

Question 11:

```
2   select ename, salary, depno from emp where salary in (select max(salary) from emp group by depno);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10

Download CSV
3 rows selected.

Question 12:

```
2   select ename, salary, depno from emp where salary> (select min(salary) from emp where depno=20);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10
Sita	30000	30

Download CSV

Question 13:

```
1
2    select ename, salary, depno from emp where salary> (select avg(salary) from emp where job='Manager');
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Sita	30000	30

Download CSV
3 rows selected.

Question 14:

```
1
2    select ename, salary, depno from emp where salary> (select max(salary) from emp where job='Manager');
```

ENAME	SALARY	DEPNO
Ram	40000	30
Sita	30000	30

Download CSV
2 rows selected.

Question 15:

```
1
2    select ename, salary, depno from emp where salary in (select max(salary) from emp group by depno);
```

ENAME	SALARY	DEPNO
Sham	20000	20
Ram	40000	30
Laxman	15000	10

Download CSV
3 rows selected.

Assignment: 8

Question 1:

```
 1  SELECT CHR(69) FROM dual;
 2  SELECT CONCAT('hello ','world') FROM dual;
 3  SELECT INSTR('hello','O') FROM dual;
 4  SELECT LENGTH('hello') FROM dual;
 5  SELECT LPAD('hello',20,' ') FROM dual;
 6  SELECT LTRIM('     hello world') FROM dual;
 7  SELECT RPAD('hello world', 20,'.') FROM dual;
 8  SELECT RTRIM('hello world     ') FROM dual;
 9  SELECT REPLACE('hello world','h','H') FROM dual;
10  SELECT SUBSTR('hello world',1,5) FROM dual;
11
```

CHR(69)
E

Download CSV

CONCAT('HELLO','WORLD')
hello world

Download CSV

INSTR('HELLO','O')
0

Download CSV

LENGTH('HELLO')
5

Download CSV

LPAD('HELLO',20,'')
hello

Download CSV

LTRIM('HELLOWORLD')
hello world

Download CSV

RPAD('HELLOWORLD' ,20, '.')

hello world.........

Download CSV

RTRIM('HELLOWORLD')
hello world

Download CSV

REPLACE('HELLOWORLD','H','H')
Hello world

Download CSV

SUBSTR('HELLOWORLD',1,5)
hello

```
12  SELECT INITCAP('hello world') FROM dual;
13  SELECT LOWER('HELLO WORLD') FROM dual;
14  SELECT UPPER('hello world') FROM dual;
15  SELECT TRANSLATE('hello world','hello','HELLO') FROM dual;
16  SELECT ABS(-2) FROM dual;
17  SELECT CEIL(5.5) FROM dual;
18  SELECT COS(90) FROM dual;
19  SELECT EXP(0) FROM dual;
20  SELECT FLOOR(5.5) FROM dual;
21
```

INITCAP('HELLOWORLD')
Hello World

Download CSV

LOWER('HELLOWORLD')
hello world

Download CSV

UPPER('HELLOWORLD')
HELLO WORLD

Download CSV

TRANSLATE('HELLOWORLD','HELLO','HELLO')
HELLO wOrLd

Download CSV

ABS(-2)
2

Download CSV

CEIL(5.5)
6

Download CSV

COS(90)
-.44807361612917015236547731439963950742

Download CSV

EXP(0)
1

Download CSV

FLOOR(5.5)
5

Download CSV

```
21
22    SELECT MOD(4,3) FROM dual;
23    SELECT POWER(2,4) FROM dual;
24    SELECT ROUND(43798,-3) FROM dual;
25    SELECT SIGN(-3) FROM dual;
26    SELECT SQRT(4) FROM dual;
27    SELECT TRUNC(4.567,2) FROM dual;
28    SELECT SYSDATE FROM dual;
29    SELECT ADD_MONTHS(SYSDATE,2) FROM dual;
30    SELECT LAST_DAY(SYSDATE) FROM dual;
31  ◄
```

MOD(4,3)
1

Download CSV

POWER(2,4)
16

Download CSV

ROUND(43798,-3)
44000

Download CSV

SIGN(-3)
-1

Download CSV

SQRT(4)
2

Download CSV

TRUNC(4.567,2)
4.56

Download CSV

SYSDATE
01-MAY-22

Download CSV

ADD_MONTHS(SYSDATE,2)
01-JUL-22

LAST_DAY(SYSDATE)

31-MAY-22

Download CSV

```
32  SELECT MONTHS_BETWEEN('10-JAN-2022','15-MAR-2022') FROM dual;
33  SELECT NEXT_DAY(SYSDATE,'TUESDAY') FROM dual;
34  SELECT GREATEST(10,40,25,78,23) FROM dual;
35  SELECT LEAST(10,40,25,78,23) FROM dual;
36  ◄
```

MONTHS_BETWEEN('10-JAN-2022','15-MAR-2022')

-2.16129032258064516129032258064516129032

Download CSV

NEXT_DAY(SYSDATE,'TUESDAY')

03-MAY-22

Download CSV

GREATEST(10,40,25,78,23)

78

Download CSV

LEAST(10,40,25,78,23)

10

Download CSV

TO_CHAR(SYSDATE,'HH:MI:SS')

04:29:21

Download CSV

Question 3:

```
45   INSERT INTO emp1 VALUES(2, 'Sham' , 5000 , 100 , 16-FEB-2022 );
46   SELECT empsal+empcom FROM emp1;
```

EMPSAL+EMPCOM
2300
5100

Download CSV

2 rows selected.

Question 4:

```
46   SELECT empsal+empcom FROM emp1;
47   SELECT emphd FROM emp1;
```

EMPHD
14-FEB-85
16-FEB-22

Download CSV

2 rows selected.

Question 5:

```
48   SELECT empn FROM emp1 WHERE to_char(emphd,'YYYY')=to_char(1985);
```

EMPN
Ram

Download CSV

Question 6:

```
49   SELECT empn FROM emp1 WHERE to_char(emphd,'YYYY')=to_char(SYSDATE,'YYYY');
```

EMPN
Sham

Download CSV