

Q5. Create the following tables, enter at least 5 records in each table and answer the queries given below.

Suppliers (SNo, Sname, Status, SCity) Parts (PNo, Pname, Colour, Weight, City) Project (JNo, Jname, Jcity) Shipment (Sno, Pno, Jno, Qunatity)

- a) Identify primary and foreign keys.
- b) Get supplier numbers for suppliers in Paris with status>20.
- c) Get suppliers details for suppliers who supply part P2. Display the supplier list in increasing order of supplier numbers.
- d) Get suppliers names for suppliers who do not supply part P2.
- e) For each shipment get full shipment details, including total shipment weights.
- f) Get all the shipments where the quantity is in the range 300 to 750 inclusive.
- g) Get part nos. for parts that either weigh more than 16 pounds or are supplied by suppliers S2, or both.
- h) Get the names of cities that store more than five red parts.
- i) Get full details of parts supplied by a supplier in London.
- j) Get part numbers for part supplied by a supplier in London to a project in London.
- k) Get the total number of project supplied by a supplier (say, S1).
- l) Get the total quantity of a part (say, P1) supplied by a supplier (say, S1).

ANSWER 5

```
create table Suppliers(  
SNo int(10) primary key,  
Sname varchar(20) ,  
status varchar(20),  
SCity varchar(20));
```

```
create table Parts(  
PNo varchar(10) primary key,  
Pname varchar(20),  
Color varchar(10),  
Weight int ,  
city varchar(20));
```

```
create table project(  
JNo varchar(10) primary key,  
Jname varchar(20),  
Jcity varchar(10));
```

```
create table Shipment(  
SNo int(10),  
PNo varchar(10),  
JNo varchar(10),  
Quantity int,  
foreign key(SNo) references Suppliers(SNo),  
foreign key(PNo) references Parts(PNo),  
foreign key(JNo) references Project(JNo),  
primary key(SNo,PNo,JNo));
```

```
insert into suppliers values(450,"S1",30,"London");  
insert into suppliers values(123,"S2",19,"New York");  
insert into suppliers values(345,"S1",22,"Paris");  
insert into suppliers values(124,"S2",70,"Los Angeles");  
insert into suppliers values(105,"S2",70,"Los Angeles");
```

```
insert into parts values( "501","P1","Black",16,"Paris");  
insert into parts values( "502","P2","Red",40,"London");  
insert into parts values( "503","P3","Gray",20,"London");  
insert into parts values( "504","P2","Green",60,"Singapore");  
insert into parts values( "505","P2","Black",10,"New York");
```

```
insert into project values("222","J1","London");  
insert into project values("1112","J2","New York");  
insert into project values("9008","J3","New York");  
insert into project values("1004","J4","Singapore");  
insert into project values("2005","J4","Delhi");
```

```
insert into shipment values(450,"504","1112",250);  
insert into shipment values(345,"505","9008",100);  
insert into shipment values(105,"502","9008",500);  
insert into shipment values(450,"503","2223",300);  
insert into shipment values(123,"501","2005",750);  
insert into shipment values(450,"501","1112",100);
```

(a)  
Primary keys are  
Suppliers: SNo  
Parts: PNo

Project: JNo

Shipment: SNo,PNo,JNo

(b) select SNo from suppliers where Scity="Paris" and status>20;

(c) Select \* from suppliers where Sno in(  
select Sno from shipment where Pno in(  
select Pno from parts where Pname="P2")) Order by sno;

(d) Select Sname from suppliers where Sno in(  
Select sno from shipment where Pno in(  
select Pno from parts where Pname!="P2"));

(e) select s.Sno, s.Pno, s.Jno, s.Quantity,  
s.quantity\*p.weight as "Total\_shipment\_weight" from shipment as s,parts as p where  
s.pno=p.pno;

(f) Select \* from shipment where quantity between 300 and 750;

(g)  
select Pno from parts where weight>16 or pno in(  
select pno from shipment where sno in(  
select s.sno from shipment as s, suppliers as su where s.sno=su.sno and su.sname="S2"));

(h) select city from parts where colour="Red" and Pno in(select pno from shipment where  
quantity>5);

(i) select \* from parts where pno in(  
select Pno from shipment where sno in(  
select sno from suppliers where Scity="London"));

(j) select Pno from shipment where sno in(select sno from suppliers where scity="London")  
and Jno in(Select jno from project where Jcity="London");

(k) select count(distinct(Jno)) as "No. of Project Supplied by supplier S1" from shipment  
where sno in(select sno from suppliers where Sname="S1");

(I) select count(\*) from parts where Pno in(Select Pno from shipment where sno in(select Sno from suppliers where sname ="S1")) and Pname="P1";