**1. Create a db called company consist of the following tables.**

**1.Emp (eno,ename, job,hiredate,salary,commission,deptno,)**

**2.dept(deptno,deptname,location)**

**eno is primary key in emp**

**deptno is primary key in dept**

create table Emp(eno int(10),ename varchar(10),job varchar(10), hiredate date,salary varchar(10),commision varchar(10),deptno varchar(20));

create table dept(deptno varchar(20),deptname varchar(20),location varchar(20));

ALTER TABLE Emp ADD PRIMARY KEY (eno);

ALTER TABLE dept ADD PRIMARY KEY (deptno);

insert into Emp(eno,ename,job,hiredate,salary,commision,deptno) values (01,'ABC','manager',2022/01/02,'5000','2000','10');

insert into Emp(eno,ename,job,hiredate,salary,commision,deptno) values (02,'PQR','salesman',2022/01/02,'1001','500','20');

insert into Emp(eno,ename,job,hiredate,salary,commision,deptno) values (03,'XYZ','manager',2022/01/02,'1000','2500','10');

insert into Emp(eno,ename,job,hiredate,salary,commision,deptno) values (04,'LMN','salesman',2022/01/02,'500','2500','20');

insert into dept (deptno,deptname,location) values ('10','production','Pune');

insert into dept (deptno,deptname,location) values ('20','Marketing','Mumbai');

**Solve Queries by SQL**

**1. List the maximum salary paid to salesman**

SELECT MAX(salary)FROM Emp where job = 'salesman' ;

**2. List name of emp whose name start with ‘I’**

select \* from Emp where ename like 'I%'

**3. List details of emp who have joined before ’30-sept-81’**

select \* from Emp where hiredate < 30/09/1981;

**4. List the emp details in the descending order of their basic salary**

select \* from Emp order by salary desc;

**5. List of no. of emp & avg salary for emp in the dept no ‘20’**

SELECT COUNT(ename)from Emp;

SELECT AVG(salary)from Emp where deptno = '20'

**6. List the avg salary, minimum salary of the emp hiredate wise for dept no ‘10’.**

SELECT AVG(salary) from Emp where deptno = '10' ;

SELECT MIN(salary) from Emp where deptno = '10' ;

**7. List emp name and its department**

select Emp.ename,dept.deptno from Emp inner join dept on Emp.deptno = dept.deptno;

**8. List total salary paid to each department**

SELECT SUM(salary) from Emp where deptno = '10';

SELECT SUM(salary) from Emp where deptno = '20';

**9. List details of employee working in ‘Dev’ department**

SELECT Emp.ename, dept.deptname from Emp inner join dept on Emp.deptno = dept. deptno where deptname = 'Dev';

**10. Update salary of all employees in deptno 10 by 5 %.**

update Emp set salary = salary + 5 where deptno = '10';

select \* from Emp;

**Q.2**

**1. employee (employee name, street, city) ,employee name is primary key**

**2. works (employee name, company name, salary)**

**3. company (company name, city) ,company name is primary key**

**4. manages (employee name, manager name)**

create table employee(employeename varchar(20) primary key,street varchar(20),city varchar(20));

insert into employee(employeename, street,city) values ('Neha','A street','A city');

insert into employee(employeename, street,city) values ('Reesha','B street','B city');

insert into employee(employeename, street,city) values ('Ritika','C street','C city');

insert into employee(employeename, street,city) values ('Ritu','C street','C city');

insert into employee(employeename, street,city) values ('Ryan','A street','A city');

insert into employee(employeename, street,city) values ('Kelly','B street','B city');

create table company(companyname varchar(20) primary key,city varchar(20));

insert into company (companyname , city)values ('First Bank Corporation','A city');

insert into company (companyname , city)values('Small Bank Corporation','B city');

insert into company (companyname , city)values('No Bank Corporation','C city');

insert into company (companyname , city)values('Yes Bank Corporation','A city');

insert into company (companyname , city)values('More Bank Corporation','B city');

create table works(employeename varchar(20),companyname varchar(20),salary double);

insert into works (employeename,companyname, salary)values('Neha','First Bank Corporation',40000);

insert into works (employeename,companyname, salary)values('Reesha','Small Bank Corporation',30000);

insert into works (employeename,companyname, salary)values('Ritika','No Bank Corporation',35000);

insert into works (employeename,companyname, salary)values('Ritu','Small Bank Corporation',25000);

insert into works (employeename,companyname, salary)values('Ryan','First Bank Corporation',15000);

insert into works (employeename,companyname, salary)values('Kelly','First Bank Corporation',10000);

create table manages(employeename varchar(20),managername varchar(20));

insert into manages (employeename,managername )values ('Neha','Ryan');

insert into manages (employeename,managername )values('Neha','Kelly');

insert into manages (employeename,managername )values('Reesha','Ritu');

**Give an expression in SQL for each of the following queries.**

**1. Find the names of all employees who work for First Bank Corporation.**

select employeename from works where companyname='First Bank Corporation';

**2. Find all employees who do not work for First Bank Coorporation**

select employeename from works where companyname<>'First Bank Corporation';

**3. Find the company that has most employees.**

**4. Find all companies located in every in which small bank corporation is located**

**5. Find details of employee having salary greater than 10,000.**

select \* from works where salary>10000;

**6. Update salary of all employees who work for First Bank Corporation by 10%.**

update works set salary=salary+10 where companyname ='First Bank Corporation';

select \* from works;

**7. Find employee and their managers.**

Select \* from manages;

**8. Find the names, street and cities of all employees who work for First Bank Corporation and earn more than 10,000.**

select e.employeename,e.street,e.city from employee e, works w where e.employeename = w.employeename and companyname="First Bank Corporation" and salary > 10000 **;**

**9. Find those companies whose employees earn a higher salary,on average, than the average salary at First Bank Corporation**

select AVG(salary) from works where companyname='First Bank Corporation';

Q.3

**The following tables form part of a database held in a relational DBMS:**

**Hotel (HotelNo, Name, City) HotelNo is the primary key**

**Room (RoomNo, HotelNo, Type, Price)**

**Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)**

**Guest (GuestNo, GuestName, GuestAddress) GuestNo is primary key**

**Room contains room details for each hotel and (HotelNo, RoomNo) forms the primary key.**

**Booking contains details of the bookings and the primary key comprises (HotelNo, GuestNo and DateFrom)**

create table Hotel(hotelNo varchar(20) primary key , name varchar(40), city varchar (40));

create table Room(roomno varchar(20)primary key,hotelno varchar (20),type varchar(20),price varchar(20));

create table Booking(hotelNo varchar(20),guestno varchar(20),dateFrom varchar(20),dateTo varchar(20),roomno varchar(20));

create table Guest(guestno varchar(20)primary key,guestname varchar(20),guestaddress varchar(50));

insert into Hotel(hotelNo,name,city)values ('01','Grosvenor','Newyork');

insert into Hotel(hotelNo,name,city)values ('02','Indigo','Delhi');

insert into Hotel(hotelNo,name,city)values ('03','Zen','London');

insert into Hotel(hotelNo,name,city)values ('04','Italia','Chikago');

insert into Hotel(hotelNo,name,city)values ('05','Bukhara','Los Angeles');

insert into Room(roomno,hotelNo,type,price)values('11','01','suit','12000');

insert into Room(roomno,hotelNo,type,price)values('13','01','presedential suit','100000');

insert into Room(roomno,hotelNo,type,price)values('14','03','deluxe','8000');

insert into Room(roomno,hotelNo,type,price)values('15','04','studio','15000');

insert into Room(roomno,hotelNo,type,price)values('16','05','super deluxe','14000');

insert into Booking (hotelno, guestno, datefrom, dateto, roomno ) values ('01','22',2022/08/02,2022/09/03,'11');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','23',2021/10/04,2021/10/05,'13');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('03','24',2020/07/08,2020/07/09,'14');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('05','25',2022/08/07,2022/08/08,'16');

insert into Guest(guestno,guestname,guestaddress) values ('23','ABC','Newyork');

insert into Guest(guestno,guestname,guestaddress) values ('24','ABC','London');

insert into Guest(guestno,guestname,guestaddress) values ('25','ABC','Delhi');

insert into Guest(guestno,guestname,guestaddress) values ('22','ABC','Mumbai');

**Solve following queries by SQL**

**1. List full details of all hotels.**

SELECT \* FROM Hotel;

**2. How many hotels are there?**

SELECT COUNT(\*) FROM Hotel;

**3. List the price and type of all rooms at the Grosvenor Hotel.**

SELECT price, type FROM Room WHERE hotelNo = (SELECT hotelNo FROM Hotel WHERE name= ‘Grosvenor Hotel’);

**4. List the number of rooms in each hotel.**

SELECT hotelNo, COUNT(roomNo) AS count FROM Room GROUP BY hotelNo;

**5. Update the price of all rooms by 5%.**

Update Room set price=price+5;

**6. List full details of all hotels in London.**

SELECT \* FROM Hotel WHERE city = ‘London’;

**7. What is the average price of a room?**

SELECT AVG(price) FROM Room;

**8. List all guests currently staying at the Grosvenor Hotel.**

SELECT \* FROM Guest WHERE guestno = (SELECT guestNo FROM Booking WHERE dateFrom <= CURRENT\_DATE AND dateTo >= CURRENT\_DATE AND hotelNo = (SELECT hotelNo FROM Hotel WHERE name = ‘Grosvenor’));

**9. List the number of rooms in each hotel in London.**

SELECT hotelNo, COUNT(roomNo) AS count FROM Room r, Hotel h WHERE r.hotelNo = h.hotelNo AND city = ‘London’ GROUP BY hotelNo;

**10.Create one view on above database and query it.**

create view show as select hotelno,name from Hotel;

if it gives error then put show (i.e view\_name in square brackets [ ])

Q4. **The following tables form part of a database held in a relational DBMS:**

**Hotel (HotelNo, Name, City) HotelNo is primary key**

**Room (RoomNo, HotelNo, Type, Price)**

**Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)**

**Guest (GuestNo, GuestName, GuestAddress) GuestNo is primary key**

create table Hotel(hotelno varchar(20) primary key , name varchar(40), city varchar (40));

create table Room(roomno varchar(20)primary key,hotelno varchar (20),type varchar(20),price varchar(20));

create table Booking(hotelno varchar(20),guestno varchar(20),datefrom varchar(20),dateto varchar(20),roomno varchar(20));

create table Guest(guestno varchar(20)primary key,guestname varchar(20),guestaddress varchar(50));

insert into Hotel(hotelno,name,city)values ('01','Grosvenor','Newyork');

insert into Hotel(hotelno,name,city)values ('02','Indigo','Delhi');

insert into Hotel(hotelno,name,city)values ('03','Zen','London');

insert into Hotel(hotelno,name,city)values ('04','Italia','Chikago');

insert into Hotel(hotelno,name,city)values ('05','Bukhara','Los Angeles');

insert into Room(roomno,hotelno,type1,price)values('11','01','double','12000');

insert into Room(roomno,hotelno,type1,price)values('13','01','presedential suit','100000');

insert into Room(roomno,hotelno,type1,price)values('14','03','deluxe','8000');

insert into Room(roomno,hotelno,type1,price)values('15','04','studio','15000');

insert into Room(roomno,hotelno,type1,price)values('16','05','family','14000');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','22','2022/08/02','2022/08/03','11');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','23','2021/10/04','2021/10/05','13');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('03','24','2020/07/08','2020/07/09','14');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('05','25','2022/08/07','2022/08/08','16');

insert into Guest(guestno,guestname,guestaddress) values ('23','ABC','Newyork');

insert into Guest(guestno,guestname,guestaddress) values ('24','ABC','London');

insert into Guest(guestno,guestname,guestaddress) values ('25','ABC','Delhi');

insert into Guest(guestno,guestname,guestaddress) values ('22','ABC','Mumbai');

**Solve following queries by SQL**

**1. What is the total revenue per night from all double rooms?**

select SUM(price)from Room where type1 = 'double';

**2. List the details of all rooms at the Grosvenor Hotel, including the name of the guest staying in the room, if the room is occupied.**

SELECT r.\* FROM Room r LEFT JOIN (SELECT g.guestname, h.hotelno, b.roomno FROM Guest g, Booking b, Hotel h WHERE g.guestno = b.guestno AND b.hotelno = h.hotelno AND name='Grosvenor' AND datefrom <= CURRENT\_DATE AND dateto >= CURRENT\_DATE) AS XXX ON r.hotelno = XXX.hotelno AND r.roomno = XXX.roomno;

**3. What is the average number of bookings for each hotel in April?**

SELECT COUNT(DISTINCT guestNo) FROM Booking WHERE (datefrom <='2022-08-01' AND dateto>='2022-08-01') OR (datefrom >='2022-08-01' AND datefrom <= '2022-08-31');

**4. Create index on one of the field and show is performance in query.**

CREATE INDEX show ON Hotel (hotelno, name);

**5. List full details of all hotels.**

select h.hotelno,h.name,h.city,r.type1,r.price from Hotel h, Room r ;

**6. List full details of all hotels in London.**

SELECT \* FROM Hotel WHERE city = 'London';

**7. Update the price of all rooms by 5%.**

update Room set price = price + 5;

select \* from Room;

**8. List the number of rooms in each hotel in London.**

SELECT h.hotelno ,COUNT(roomNo) AS count FROM Room r, Hotel h WHERE r.hotelno = h.hotelno AND city = 'London' GROUP BY hotelno;

**9. List all double or family rooms with a price below £40.00 per night, in ascending order of price**

SELECT \* FROM Room WHERE price < '40' AND type1 IN ('double', 'family')

ORDER BY price;

**Q.5** **The following tables form part of a database held in a relational DBMS:**

**Hotel (HotelNo, Name, City) HotelNo is the primary key**

**Room (RoomNo, HotelNo, Type, Price)**

**Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)**

**Guest (GuestNo, GuestName, GuestAddress)**

create table Hotel(hotelno varchar(20) primary key , name varchar(40), city varchar (40));

create table Room(roomno varchar(20)primary key,hotelno varchar (20),type varchar(20),price varchar(20));

create table Booking(hotelno varchar(20),guestno varchar(20),datefrom varchar(20),dateto varchar(20),roomno varchar(20));

create table Guest(guestno varchar(20)primary key,guestname varchar(20),guestaddress varchar(50));

insert into Hotel(hotelno,name,city)values ('01','Grosvenor','Newyork');

insert into Hotel(hotelno,name,city)values ('02','Indigo','Delhi');

insert into Hotel(hotelno,name,city)values ('03','Zen','London');

insert into Hotel(hotelno,name,city)values ('04','Italia','Chikago');

insert into Hotel(hotelno,name,city)values ('05','Bukhara','Los Angeles');

insert into Room(roomno,hotelno,type1,price)values('11','01','double','12000');

insert into Room(roomno,hotelno,type1,price)values('13','01','presedential suit','100000');

insert into Room(roomno,hotelno,type1,price)values('14','03','deluxe','8000');

insert into Room(roomno,hotelno,type1,price)values('15','04','studio','15000');

insert into Room(roomno,hotelno,type1,price)values('16','05','family','14000');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','22','2022/08/02','2022/08/03','11');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','23','2021/10/04','2021/10/05','13');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('03','24','2020/07/08','2020/07/09','14');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('05','25','2022/08/07','2022/08/08','16');

insert into Guest(guestno,guestname,guestaddress) values ('23','ABC','Newyork');

insert into Guest(guestno,guestname,guestaddress) values ('24','ABC','London');

insert into Guest(guestno,guestname,guestaddress) values ('25','ABC','Delhi');

insert into Guest(guestno,guestname,guestaddress) values ('22','ABC','Mumbai');

**Solve following queries by SQL**

**1. List full details of all hotels.**

select h.hotelno,h.name,h.city,r.type1,r.price from Hotel h, Room r ;

**2. How many hotels are there?**

select count(name) from Hotel;

**3. List the price and type of all rooms at the Grosvenor Hotel.**

select type1 from Room;

**4. List the number of rooms in each hotel**

**5. List all guests currently staying at the Grosvenor Hotel.**

**6. List all double or family rooms with a price below £40.00 per night, in ascending order of price.**

SELECT \* FROM Room WHERE price < '40' AND type1 IN ('double', 'family')

ORDER BY price;

**7. How many different guests have made bookings for August?**

select guestno from Booking where datefrom between '2022/08/01' and '2022/08/31';

**8. What is the total income from bookings for the Grosvenor Hotel today?**

**9. What is the most commonly booked room type for each hotel in London?**

select MAX(type1) from Room where hotelno = '01';

**10. Update the price of all rooms by 5%.**

Update Room set price=price+5;

**Q.6 The following tables form part of a database held in a relational DBMS:**

**Hotel (HotelNo, Name, City)**

**Room (RoomNo, HotelNo, Type, Price)**

**Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)**

**Guest (GuestNo, GuestName, GuestAddress)**

create table Hotel(hotelno varchar(20) primary key , name varchar(40), city varchar (40));

create table Room(roomno varchar(20)primary key,hotelno varchar (20),type varchar(20),price varchar(20));

create table Booking(hotelno varchar(20),guestno varchar(20),datefrom varchar(20),dateto varchar(20),roomno varchar(20));

create table Guest(guestno varchar(20)primary key,guestname varchar(20),guestaddress varchar(50));

insert into Hotel(hotelno,name,city)values ('01','Grosvenor','Newyork');

insert into Hotel(hotelno,name,city)values ('02','Indigo','Delhi');

insert into Hotel(hotelno,name,city)values ('03','Zen','London');

insert into Hotel(hotelno,name,city)values ('04','Italia','Chikago');

insert into Hotel(hotelno,name,city)values ('05','Bukhara','Los Angeles');

insert into Room(roomno,hotelno,type1,price)values('11','01','double','12000');

insert into Room(roomno,hotelno,type1,price)values('13','01','presedential suit','100000');

insert into Room(roomno,hotelno,type1,price)values('14','03','deluxe','8000');

insert into Room(roomno,hotelno,type1,price)values('15','04','studio','15000');

insert into Room(roomno,hotelno,type1,price)values('16','05','family','14000');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','22','2022/08/02','2022/08/03','11');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('01','23','2021/10/04','2021/10/05','13');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('03','24','2020/07/08','2020/07/09','14');

insert into Booking (hotelno,guestno,datefrom,dateto,roomno)values('05','25','2022/08/07','2022/08/08','16');

insert into Guest(guestno,guestname,guestaddress) values ('23','ABC','Newyork');

insert into Guest(guestno,guestname,guestaddress) values ('24','ABC','London');

insert into Guest(guestno,guestname,guestaddress) values ('25','ABC','Delhi');

insert into Guest(guestno,guestname,guestaddress) values ('22','ABC','Mumbai');

**Solve following queries by SQL**

**1. List full details of all hotels.**

select h.hotelno,h.name,h.city,r.type1,r.price from Hotel h, Room r ;

**2. List full details of all hotels in London.**

SELECT \* FROM Hotel WHERE city = 'London';

**3. List all guests currently staying at the Grosvenor Hotel.**

select \* from Booking where dateto >= '2022/11/11';

**4. List the names and addresses of all guests in London, alphabetically ordered by name.**

select guestname , guestaddress from Guest where guestaddress = 'London' order by guestname;

**5. List the bookings for which no date\_to has been specified.**

select \* from Booking where dateto = 'null';

**6. How many hotels are there?**

select count(name) from Hotel;

**7. List the rooms that are currently unoccupied at the Grosvenor Hotel.**

**8. What is the lost income from unoccupied rooms at each hotel today?**

**9. Create index on one of the field and show is performance in query.**

CREATE INDEX show ON Hotel (hotelno, name);

**10. Create one view on above database and query it**

CREATE VIEW hotel\_view AS SELECT name, city FROM Hotel;

UPDATE hotel\_view SET name = 'India meal' WHERE name = 'Indigo'; (query on view)

select \* from hotel\_view;

**7. Consider the following database**

**Project(project\_id,proj\_name,chief\_arch) , project\_id is primary key**

**Employee(Emp\_id,Emp\_name) , Emp\_id is primary key**

**Assigned-To(Project\_id,Emp\_id)**

create table Project(project\_id varchar(10),proj\_name varchar(20),chief\_arch varchar(20));

create table Employee(Emp\_id int,Emp\_name varchar(20));

alter table Project add primary key(project\_id);

alter table Emp add primary key(Emp\_id);

create table Assigned\_To(project\_id varchar(5),Emp\_id int);

//create table Assigned\_To(project\_id int, foreign key(project\_id) references Project(project\_id), Emp\_id int , foreign key (Emp\_id) references Employee(Emp\_id) );

insert into Project Values('C353','Database','MYSQL'),('C354','JAVA','Ecplise'),('C453','PYTHON','Pycharm');

insert into Employee Values(123,'Swapnil'),(124,'Akshay'),(125,'Ritul');

insert into Assigned\_To values('C353',123),('C353',124),('C354',125);

**1.Get the details of employees working on project C353**

select emp\_id from Assigned\_To where projectid = 'C353';

**2. Get employee number of employees working on project C353**

select A.emp\_id, emp\_name from Assigned\_To A , Employee where project\_id = 'C353' ;

//select count(\*) from Assigned\_To , Employee where project\_id = 'C353' ;

**3. Obtain details of employees working on Database project**

select Emp\_name, A. Emp\_id from A. Assigned\_To A, Employee where project\_id in (select P.project\_id from P. project where P. proj\_name = 'Database');

**4. Get details of employees working on both C353 and C354**

select Emp\_name, A.emp\_id from Assigned\_to A, Employee where A.Project\_id = 'C354' union select Emp\_name, A.emp\_id from Assigned\_to A, Employee where A.Project\_id = 'C353';

**5. Get employee numbers of employees who do not work on project C453**

**8. Consider the following database**

**Employee(emp\_no,name,skill,pay-rate) eno primary key**

**Position(posting\_no,skill) posting\_no primary key**

**Duty\_allocation(posting\_no,emp\_no,day,shift)**

**Find the SQL queries for the following:**

create table Employee(emp\_no int, primary key(emp\_no),name text,skill text,pay\_rate int);

create table Positions(posting\_no int, primary key(posting\_no),skill text);

create table Duty\_allocation(posting\_no int ,foreign key(posting\_no) references Positions(posting\_no),emp\_no int ,foreign key(emp\_no) references Employee(emp\_no),day date,shift text);

**1. Get the duty allocation details for emp\_no 123461 for the month of April 1986.**

select posting\_no., shift, day

from Duty\_allocation

where emp\_no = 123461 and

Day ≥ 1986-04-01 and Day ≤ 1986-04-30 ;

**2. Find the shift details for Employee ‘xyz’**

select posting\_no., shift, day

from Duty\_allocation, Employee

where Duty allocation.emp\_no. = Employee.emp\_no and

Name = 'XYZ';

**3. Get employees whose rate of pay is more than or equal to the rate of pay of employee ‘xyz’**

select S.name, S.pay\_rate from Employee as S, Employee as T where S.pay\_rate > T.pay\_rate and T.name = 'XYZ';

**4. Get the names and pay rates of employees with emp\_no less than 123460 whose rate of pay is more than the rate of pay of at least one employee with emp\_no greater than or equal to 123460.**

Select name, pay\_rate from Employee where emp\_no < 123460 and pay\_rate > some (select pay\_rate from Employee where emp\_no ≥ 123460);

**5. Find the names of employees who are assigned to all positions that require a Chef’s skill**

select S.Name from Employee S where (select posting\_no from Duty\_allocation D where S.emp\_no = D.emp\_no) contains (select P.posting\_no from position P where P.skill = 'Chef');

**6 .Find the employees with the lowest pay rate**

select emp\_no, Name, Pay\_rate from Employee where pay\_rate ≤ all (select pay\_rate from Employee)

**7 .Get the employee numbers of all employees working on at least two dates.**

select emp\_no from Duty\_allocation group by emp\_no having (count;\*) > 1

**8 .Get a list of names of employees with the skill of Chef who are assigned a duty**

select Name from Employee where emp\_no in ((select emp\_no from Employee where skill = 'Chef') intersect (select emp\_no from Duty\_allocation));

**9 .Get a list of employees not assigned a duty**

(select emp\_no from Employee) minus (select emp\_no from Duty\_allocation)

**10.Get a count of different employees on each shift**

select shift, count (distinct emp\_no) from Duty\_allocation group by shift;

9. **Create the following tables. And Solve following queries by SQL**

**• Deposit (actno,cname,bname,amount,adate)**

**• Branch (bname,city)**

**• Customers (cname, city)**

**• Borrow(loanno,cname,bname, amount) Add primary key and foreign key wherever applicable. Insert data into the above created tables.**

create table deposit (actno varchar(5) ,cname varchar(18) , bname varchar(18) , amount int ,adate date);

create table branch(bname varchar(18),city varchar(18));

create table customers(cname varchar(19) ,city varchar(18));

create table borrow(loanno varchar(5), cname varchar(18), bname varchar(18), amount int);

**deposit:**

insert into deposit values('100',’anil’,'vrce',1000,'1995-03-01');

insert into deposit values('101','sunil','ajni',5000,'1996-01-04');

insert into deposit values('102','mehul','karolbagh',3500,'1995-11-17');

insert into deposit values('104','madhuri','chandi',1200,'1995-12-17');

insert into deposit values('105','prmod','m.g.road',3000,'1996-03-27');

insert into deposit values('106','sandip','andheri',2000,'1996-03-31');

insert into deposit values('107','shivani','virar',1000,'1995-07-05');

insert into deposit values('108','kranti','nehruplace',5000,'1996-06-02');

insert into deposit values('109','minu','powai',7000,'1997-12-02');

**branch:**

insert into branch values('vrce','nagpur');

insert into branch values('ajni','nagpur');

insert into branch values('karolbagh','delhi');

insert into branch values('chandi','delhi');

insert into branch values('dharampeth','nagpur');

insert into branch values('m.g.road','banglore');

insert into branch values('andheri','bombay');

insert into branch values('vihar','bombay');

insert into branch values('nehru place','delhi');

insert into branch values('powai','bombay');

**customer:**

insert into customers values ('anil','calcutta');

insert into customers values ('sunil','delhi');

insert into customers values ('mehul','baroda');

insert into customers values ('mandar','patna');

insert into customers values ('madhuri','nagpur');

insert into customers values ('pramod','nagpur');

insert into customers values ('sandip','surat');

insert into customers values ('shivani','bombay');

insert into customers values ('kranti','bombay');

insert into customers values ('naren','bombay');

**borrow:**

insert into borrow values ('201','anil','vrce',1000);

insert into borrow values ('206','mehul','vrce',5000);

insert into borrow values ('311','sunil','dharampeth',3000);

insert into borrow values ('321','madhuri','andheri',2000);

insert into borrow values ('375','prmod','vihar',8000);

insert into borrow values ('481','kranti','nehru place',3000);

**1. Display names of depositors having amount greater than 4000.**

SELECT CNAME FROM DEPOSIT WHERE AMOUNT >4000;

**2. Display account date of customers Anil**

Select adate from Deposit where cname=’Anil’;

**3. Display account no. and deposit amount of customers having account opened between dates 1-12-96 and 1-5-97**

SELECT act\_no, AMOUNT FROM DEPOSIT WHERE ADATE BETWEEN ‘1996-12-01’ AND ’1997-05-01’;

**4. Find the average account balance at the Perryridge branch.**

select avg (balance) from account where branch-name = “Perryridge”

**5. Find the names of all branches where the average account balance is more than $1,200**.

select branch-name, avg-balance from (select branch-name, avg (balance) from account group by branch-name) as result (branch-name, avg-balance) where avg-balance > 1200

**6. Delete depositors having deposit less than 5000**

Delete from deposit where amount <5000;

**7. Create a view on deposit table.**

create View deposit\_view as select actno,cname,bname,amount,adate from deposit;

select \* from deposit\_view;

10. **Create the following tables. And Solve following queries by SQL**

**1. Deposit (actno,cname,bname,amount,adate)**

**2. Branch (bname,city)**

**3. Customers (cname, city)**

**4. Borrow(loanno,cname,bname, amount)**

**Add primary key and foreign key wherever applicable.**

**Insert data into the above created tables.**

Use Question 9 Structure

1. **Display names of all branches located in city Bombay.**

Select \* from Branch where city=’Bombay’

1. **Display account no. and amount of depositors.**

Select actno, amount from deposit

1. **Update the city of customers Anil from Pune to Mumbai**

Update Customers set city=’Mumbai’ where city=’Pune’

1. **Find the number of depositors in the bank**

select count (distinct cname) from deposit

1. **Calculate Min,Max amount of customers.**
2. **Create an index on deposit table**

create index deposit\_index on deposit(actno);

**g. Create View on Borrow table.**

Create view borrow\_view as select bname,city from borrow;

Select \* from borrow\_view;

**11. Create the following tables. Solve queries by SQL**

**• Deposit (actno,cname,bname,amount,adate)**

**• Branch (bname,city)**

**• Customers (cname, city)**

**• Borrow(loanno,cname,bname, amount)**

**Add primary key and foreign key wherever applicable. Insert data into the above created tables.**

**Use Question 9 structure**

1. **Display account date of customers Anil.**

Select adate form deposit where cname=’Anil’;

b. **Modify the size of attribute of amount in deposit**

c. **Display names of customers living in city pune.**

Select cname form customers where city=’Pune’

d. **Display name of the city where branch KAROLBAGH is located.**

Select city from branch where bname=’KAROLBAGH’

e. **Find the number of tuples in the customer relation**

select count (\*) from customer

f. **Delete all the record of customers Sunil**

delete \* from customer where cname=’Sunil’

g. **Create a view on deposit table**

create View deposit\_view as select actno,cname,bname,amount,adate from deposit;

select \* from deposit\_view;

**12. Create the following tables. Solve queries by SQL**

**• Deposit (actno,cname,bname,amount,adate)**

**• Branch (bname,city)**

**• Customers (cname, city)**

**• Borrow(loanno,cname,bname, amount)**

**Add primary key and foreign key wherever applicable. Insert data into the above created tables. Solve following queries by SQL**

**Use question 9 Structure**

1. **Display customer name having living city Bombay and branch city Nagpur**

select c.city from customer c, branch b where c.city=’bombay’ and b.city=’nagpur’ ;

1. **Display customer name having same living city as their branch city**

select c.city from customer c, branch b where c.city=b.city ;

1. **Display customer name who are borrowers as well as depositors and having living city Nagpur.**

Select cname form deposit d , borrow b, customers c where d.cname=b.name, d.cname=c.cname and c.city=’Nagpur’

1. **Display borrower names having deposit amount greater than 1000 and loan amount greater than 2000**

select br1.cname, br1.amount, d1.cname, d1.amount from borrow br1,deposit d1 where d1.cname = br1.cname and d1.amount > 1000 and br1.amount > 2000;

1. **Display customer name living in the city where branch of depositor sunil is located.**

select c.cname from customer c where c.city in (select b.city from

branch b where b.bname in (select d.bname from deposit d where d.cname='sunil'));

1. **Create an index on deposit table**

create index deposit\_index on deposit(actno);

**13) Create the following tables.**

**1)PUBLISHER( PID , PNAME ,ADDRESS ,STATE ,PHONE ,EMAILID );**

**2)BOOK( ISBN ,BOOK\_TITLE , CATEGORY , PRICE , COPYRIGHT\_DATE , YEAR ,PAGE\_COUNT ,PID );**

**3) AUTHOR(AID,ANAME,STATE,CITY ,ZIP,PHONE,URL )**

**4) AUTHOR\_BOOK(AID,ISBN);**

**5) REVIEW(RID,ISBN,RATING);**

**Solve following queries by SQL**

create table publisher(pid int, pname varchar(50), address varchar(50), state varchar(50), phone varchar(50), emailid varchar(50));

create table book(isbn varchar(50),book\_title varchar(50), category varchar(50), price int, copyright\_date int , year int,page\_count int ,pid int );

create table author(aid int,aname varchar(50),state varchar(50),city varchar(50),zip int,phone varchar(50),url varchar(50));

create table author\_book(aid int,isbn varchar(50));

create table review(rid int,isbn varchar(50),rating int);

**Publisher**

insert into publisher values(1, 'sunrise', 'mumbai', 'maharashtra', '9098765432', 'sunrise12@gmail.com');

insert into publisher values (2, 'mehta','pune', 'maharashtra', '9128765432', 'addison 12@gmail.com');

insert into publisher values (3,'morgan kaufmann', 'korth', 'maharashtra', '9548765432', 'morgan12@gmail.com');

**Book:**

insert into book values ('0321228383', 'database systems', 'a', 255, 12, 2007, 86, 1);

insert into book values ('0321228384', 'computer science', 'b', 205, 12, 2007, 80, 2);

insert into book values ('0321228385', 'out of their minds', 'c', 145, 12, 2007, 70, 3);

**Author**

insert into author values (10, 'chetan bhagat', 'maharashtra', 'mumbai', 401205, '9098765432', 'www.k10.com');

insert into author values (20, 'lewis', 'maharashtra', 'pune',410501, '9128765432', 'www.lewis20.com');

insert into author values (30, 'bernstein', 'maharashtra', 'korth', 402501, '9548765432', 'www.bern30.com');

**Author\_book**

insert into author\_book values (10,'0321228383');

insert into author\_book values (20,'0321228384');

insert into author\_book values (30,'0321228385');

**Review**

insert into review values(201, '0321228383', 4);

insert into review values(202, '0321228384', 3);

insert into review values(203, '0321228385', 4);

1. **Retrieve city, phone, url of author whose name is ‘CHETAN BHAGAT’.**

select city,phone,url from author where aname='Chetan Bhagat';

1. **Retrieve book title, reviewable id and rating of all books.**

select book\_title,rid,rating from review r,book b where b.isbn=r.isbn;

1. **Retrieve book title, price, author name and url for publishers ‘MEHTA’.**

select book\_title,price,aname,url from book b,author a,publisher p where b.pid=p.pid and p.pname = 'MEHTA';

**4. In a PUBLISHER relation change the phone number of ‘MEHTA’ to 123456**

update publisher set phone='123456' where pname='mehta';

**5. Calculate and display the average, maximum, minimum price of each publisher.**

select avg(price),min(price),max(price) from book, publisher where book.pid=publisher.pid;

**6. Delete details of all books having a page count less than 100.**

delete from book where page\_count < 100;

**7. Retrieve details of all authors residing in city Pune and whose name begins with character ‘C’.**

select \* from author where city='Pune' and aname like 'C%';

**8. Retrieve details of authors residing in same city as ‘Korth’.**

select \* from author where city='Korth';

**9. Create a procedure to update the value of page count of a book of given ISBN.**

**10. Create a function that returns the price of book with a given ISBN.**