Q1

create table Student(sreg\_no integer primary key, name varchar(30), class varchar(10));

create table Competition(c\_no integer primary key, name varchar(20),type varchar(15) check(type in('academics','sports')));

create table stu\_com(sreg\_no integer,foreign key(sreg\_no) references Student(sreg\_no) on delete cascade on update set null, c\_no integer,foreign key(c\_no) references Competition(c\_no) on delete cascade on update set null,rank integer, year integer);

insert into student values(1,'sahil','MSC') ;

insert into student values(2,'raj','MSC');

insert into student values(3,'ram','5th');

insert into student values(4,'mohit','5th');

insert into competition values(101,'running','sports');

insert into competition values(102,'swimming','academics');

insert into competition values(103,'cricket','sports');

insert into competition values(104,'shooting','academics');

insert into stu\_com values(1,101,1,1996);

insert into stu\_com values(2,101,1,2001);

insert into stu\_com values(4,102,1,1995);

insert into stu\_com values(1,102,1,1999);

insert into stu\_com values(3,103,2,2001);

insert into stu\_com values(2,103,2,1995);

insert into stu\_com values(4,104,3,1975);

insert into stu\_com values(1,104,1,2002);

a)

1. select name from competition;

2. select name from Student where sreg\_no =some(select sreg\_no from stu\_com where rank=1 and 1995 < year and year < 2005 and c\_no =(select c\_no from Competition where name='running'));

3. select name from student where sreg\_no=(select sreg\_no from stu\_com sc group by sreg\_no having count(sreg\_no)=(select max (mycount) from (select sreg\_no,count(sreg\_no) mycount from stu\_com sc group by sreg\_no) as x limit 1));

4. select count(name) from competition where type='sports';

5.select distinct s.\* from student s, stu\_com sc where s.sreg\_no = sc.sreg\_no;

b)

1. create procedure countcompi(c\_name varchar(20)) language sql as $$ select count(name) from competition where type=c\_name $$;

call countcompi('academics');

call countcompi('sports');

2. create procedure cname(years integer) language sql as $$ select name from competition where c\_no=some(select c\_no from stu\_com where year=years) $$;

call cname(2001);

c)

1. create function count\_type(ctype varchar(10)) returns integer language sql as $$ select count(name) from competition where type=ctype $$;

select count\_type('sports');

2. create function count\_win(sname varchar(10)) returns integer language sql as $$ select count(sreg\_no) from stu\_com where rank=1 and year=2001 and sreg\_no=some(select sreg\_no from student where name=sname) $$;

select count\_win('raj');

d)

1. declare test\_cur cursor WITH HOLD for select \* from competition where c\_no=some(select sc.c\_no from stu\_com sc, student s where sc.rank=1 and sc.year=1995 and s.class='5th');

2.

e)

1.

delimiter $$

create trigger update\_year

before insert on student\_competition

for each row

begin

if new.year > year(now()) then

set new.year = year(now());

end if;

end$$

delimiter ;

2.

delimiter $$

create trigger update\_tot\_prize

after insert on student\_competition

for each row

begin

if new.rank = 1 then

update tot\_prize set no\_of\_prizes = no\_of\_prizes + 1 where stud\_reg\_no = new.sreg\_no;

end if;

end$$

delimiter ;

f)

1. create view v1 AS select name,type from competition order by type;

select \* from v1;

2. create view v2 AS select distinct s.name as b, s.class, co.name,sc.rank , sc.year from student s, competition co, stu\_com sc where s.sreg\_no=sc.sreg\_no and co.c\_no=sc.c\_no order by s.name;

select \* from v2;

2)

create table customer(cust\_no integer primary key,cust\_name varchar(20),cust\_street varchar(15), cust\_city varchar(20));

create table branch(branch\_no integer primary key, branch\_name varchar(20) not null,branch\_city varchar(20));

create table account(acc\_no integer primary key, acc\_type varchar(10),balance numeric(8,2),cust\_no integer,foreign key(cust\_no) references customer(cust\_no) on delete cascade on update set null,branch\_no integer,foreign key(branch\_no) references branch(branch\_no) on delete cascade on update set null);

create table loan(loan\_no integer primary key, loan\_amt numeric(9,2),no\_of\_years integer,cust\_no integer,foreign key(cust\_no) references customer(cust\_no) on delete cascade on update set null,branch\_no integer,foreign key(branch\_no) references branch(branch\_no) on delete cascade on update set null);

insert into customer values(1,'Sahil','MG road','nagar');

insert into customer values(2,'Raj','JM road','pune');

insert into customer values(3,'Sachin','HR road','pimpri');

insert into customer values(4,'Ram','ABC road','CIDCO');

insert into customer values(5,'Rohit','MG road','mumbai');

insert into customer values(6,'Sohan','JM road','sindhudurg');

insert into branch values(101,'pimpri branch','pimpri');

insert into branch values(102,'nagar branch','nagar');

insert into branch values(103,'CIDCO branch','CIDCO');

insert into branch values(104,'sadashiv branch','sadashiv peth');

insert into account values(10,'saving',4000,1,101);

insert into account values(20,'deposit',7000,2,102);

insert into account values(30,'saving',10000,5,103);

insert into account values(40,'deposit',2000,6,104);

insert into loan values(11,20000,2,2,101);

insert into loan values(22,30000,4,3,102);

insert into loan values(33,45000,3,6,103);

insert into loan values(44,10000,2,5,104);

a)

1.select c.cust\_name from customer c, loan l where l.loan\_amt > 10000 and c.cust\_no=l.cust\_no;

2.select c.cust\_name from customer c,account a where c.cust\_no=a.cust\_no except select c.cust\_name from customer c,loan l where c.cust\_no=l.cust\_no;

3.select c.cust\_name from customer c,account a where c.cust\_no=a.cust\_no intersect select c.cust\_name from customer c,loan l where c.cust\_no=l.cust\_no;

4.select cust\_name from customer where cust\_no=some(select l.cust\_no from loan l,branch b where b.branch\_name='pimpri branch' and l.branch\_no=b.branch\_no);

5.select c.cust\_name from customer c, account a where a.acc\_type='saving' and a.cust\_no=c.cust\_no;

6.select sum(l.loan\_amt) from loan l, branch b where b.branch\_name='nagar branch' and l.branch\_no=b.branch\_no;

7.select c.cust\_name from customer c, loan l,branch b where c.cust\_city=b.branch\_city and c.cust\_no=l.cust\_no;

b)

1.create procedure transfer() language sql as $$ update account set balance=balance+1000 where acc\_no=20; update account set balance=balance-1000 where acc\_no=10;$$;

call transfer()

2.

c)

1. create function totalloan(branchname varchar(10)) returns integer language sql as $$ select sum(l.loan\_amt) from loan l, branch b where b.branch\_no=l.branch\_no and b.branch\_name=branchname; $$;

select totalloan('CIDCO branch');

2. create function countcust(branchname varchar(10)) returns integer language sql as $$ select count(c.cust\_name) from customer c, branch b , loan l where b.branch\_no=l.branch\_no and c.cust\_no=l.cust\_no and b.branch\_name=branchname; $$;

select countcust('CIDCO branch');

f)

1. create view v3 AS select c.cust\_no as cn,c.cust\_name,c.cust\_street,c.cust\_city ,a.\* from customer c, account a where c.cust\_no=a.cust\_no;

select \* from v3;

2. create view v4 AS select l.\* from loan l,branch b where b.branch\_name='sadashiv branch' and l.branch\_no=b.branch\_no;

select \* from v4;