Question 3.11

1. select distinct(ID),name from course natural join takes natural join student where
2. dept\_name ='Comp. Sci.';
3. select id, name from student where id not in (select id from student natural join takes where year<2010);
4. select max(salary), dept\_name from instructor group by dept\_name;
5. select salary, dept\_name from instructor where salary<=ALL (select max(salary) from instructor group by dept\_name);

Question 3.12

1. insert into course values ('CS-001', 'Weekly Seminar', 'Comp. Sci.', '0');
2. INSERT INTO SECTION(course\_id, sec\_id, semester, year,building, room\_number,time\_slot\_id) VALUES ('CS-001', '1', 'Autumn', 2009,'AAA','514', 'B');
3. insert into takes (id, course\_id, sec\_id, semester, year)

select id , 'CS-001', '1', 'Autumn', '2009' from student where dept\_name='Comp. Sci.';

1. delete from takes where course\_id = 'CS-001' and sec\_id='1' and semester='Autumn' and year='2009' and id=(select id name from student where name='Shankar');
2. There won’t be any error.
3. delete from course where title like '%database%' and title <> 'database';

Question 3.14

1. select count (report\_number) from accident natural join participated natural join person where name='John Smith';
2. update participated set damage\_amount = 3000 where report\_number = ‘AR2197’ and driver-id in (select driver-id from owns where license = ‘AABB2000’);

Question 3.15

1. select customer\_name from borrower natural join loan where branch\_name in (select branc\_name from branch where branch\_city <> 'Brooklyn');
2. select sum(amount) from loan;
3. select branch\_name from branch where assets>any (select assets from branch where branch\_city='Brooklyn');

Question 3.16

1. select \* from works where company\_name = 'First bank Corporation';
2. select s.employee\_name from employee s inner join works t on s.employee\_name = t.employee\_name inner join company c on s.city=c.city;
3. select e2.employee\_name from manages e1, employee e2, employee e3 where e2.employee\_name = e1.employee\_name and e2.employee\_name = e1.manager\_name AND e2.city = e3.city and e2. street =e3.street;
4. select employee\_name from works where salary>(select avg(salary) from works);
5. select company\_name from works group by company\_name having sum(salary)<ALL ( select sum(salary) from works group by company\_name);

Question 3.17

1. update works set salary=salary\*1.1 where company\_name=’First Bank Corporation’
2. update works set salary=salary\*1.1 where company\_name = ‘First Bank Corportion’ and employee\_name in (select manager\_name from manages);
3. delete from works where company\_name=’First bank Corporation’;

Question 3.21

1. select distinct(b.name) from member b inner join borrowed l on b. memb\_no=l.memb\_no inner join book k on k. isbn=l.isbn where k.publisher=’McGraw-Hill’;
2. select distinct(name) from member where memb\_no in (select memb\_no from borrowed natural join book where publisher=’Mcgraw-Hill’);
3. select name, publisher from(select name, publisher, count isbn from books p, employee q, loan r where r.isbn=p.isbn and r.empno=q.empno group by name, publisher ) as collection(name, publisher, number\_of\_books) where number\_of\_books>5;
4. select name, avg(memb\_no) from member, borrowed where member. memb\_no=borrowed.memb\_no and member.memb\_no in (select memb\_no from borrowed) group by member.meb\_no;

Question 3.24

Select dept\_name, sum(salary) as sum\_salary from instructor where sum\_salary>=(select avg(salary) from instructor) group by dept\_name;