Question 1

a) Select pname from parts p inner join catalog c on p.pid=c.pid inner join suppliers s on s.sid=c.sid;

b) Select sname from parts p inner join catalog c on p.pid=c.pid inner join suppliers s on s.sid=c.sid where p.color='red';

c) Select sid from parts p inner join catalog c on p.pid=c.pid where p.color='red' intercept Select sname from parts p inner join catalog c on p.pid=c.pid where p.color='green';

d) Select sid from parts p inner join catalog c on p.pid=c.pid where p.color='red' union Select sid from suppliers where address='221 packers street';

e) Select p.color,c.cost from parts p inner join catalog c on p.pid=c.pid inner join suppliers s on s.sid=c.sid where s.sname='john';

f) Select pname from parts p inner join catalog c on p.pid=c.pid where cost = (select max(cost) from catalog);

Question 2

a) Select w.worker_id, w.first_name, w.salary,w.joining_data,w.department from worker w , bonus b where b.worker_ref_id=w.worker_id and salary between (100000 and 500000) and bonus between (5000 and 10000);

b) Select w.worker_id, w.first_name, w.salary,w.joining_data,w.department from worker w , Title t where t.worker_ref_id=w.woker_id and t.worker_title='manager';

c) Select w1.first_name , w2.first_name from worker w1, worker w2 where w1.woker_id<>w2.worker_id and w1.salary=w2.salary;

d) Select w.first_name, w.salary,b.bonus from worker w , bonus b ,title t where b.worker_ref_id=w.worker_id and t.worker_ref_id=w.worker_id and t.title="manager" ;

e) Update worker w inner join bonus b on w.woker_id = b.woker_ref_id set bonus=1.1*bonus where w.department="CSE";

Question 3
a) Select * from students where gpa>(select avg(gpa) from student);

b) Select avg(num_of_student) from classes c , teacher t where c.teacher_id=t.id and t.subject in("DSW" , "DSA");

c) Select * from student where class_id = (select id from classes where num_of_student =(select max(num_of_student from classes)));

d) Select subject from teacher group by subject having avg(salary) = (select max(avg(salary)) form teacher group by subject);

Question 4

a) select d.name,d.city from director d where d.director_id =(select director_id from film where gross>1.5*budget);

b) Select * from film where budget = (select max(budget) from film);

c) select d.name,d.city from director d where d.director_id =(select director_id from film where budget<200000000);