**Ex:1**

**a)** select title from course

where credits >= 3;

**b)** select room\_number from classroom

where building = ‘Watson’ or building = ‘Packard’;

**c)** select title from course

where dept\_name = ‘Comp. Sci.’;

**d)** select title from course c, teaches t

where t.semester = ‘Fall’ and c.course\_id = t.course\_id;

**e)** select name from student

where tot\_cred between 45 and 90;

**f)** select name from student

where name~\*’[aewiuoy]$’;

**g)** select title from course c, prereq q

where c.course\_id = p.course\_id and p.prereq\_id = ‘CS-101’;

**Ex:2**

**a)** select dept\_name, avg(salary) AS avg\_salary from instructor

group by dept\_name

ORDER BY avg\_salary;

**b)** SELECT d.building,count(1) FROM department d, course c

WHERE d.dept\_name = c.dept\_name

GROUP BY d.building

HAVING count(1) = (SELECT MAX(second.number) FROM

(SELECT count(1) as number FROM department, course

WHERE department.dept\_name = course.dept\_name

Group by department.building) as second)

**c)** select d.dept\_name, count(1) from department d, course c

where d.dept\_name

having count(1) = (select min(second.number) from

(select count(1) as number from department d, course c

Group by d.dept\_name) as second);

**d)** SELECT DISTINCT s.id,s.name FROM student s

WHERE s.id IN (SELECT third.id FROM

(SELECT student.id, count(1) as number

FROM student, takes, course

WHERE student.id=takes.id and takes.course\_id=course.course\_id

and course.dept\_name=’Comp. Sci.’ group by srudent.id) as third

WHERE third.number>3);

**e)** select name from instructor

where dept\_name = ‘Philosophy’ or dept\_name = ‘Music’ or dept\_name =

‘Biology’;

**f)** select distinct i.id, i.name from instructor I, teaches t

where i.id = t.id and t.year = 2018 and

t.id not in (select dictinct i.id from instructor I, teaches t

where i.id = t.id and t.year = 2017);

**Ex:3**

**a)** select s.name from student s, takes t

where s.id = t.id and (t.grade = ‘A’ or t.grade = ‘A-‘ and t.course\_id like

‘CS%’

group by s.name;

**b)** select id, name from instructor

where id in (select a.i\_id from advisor a, student s, takes t

where a.s id = s.id and l.id = s.id and

(t.grade != ‘A’ and t.grade != ‘A-’ and t.grade != ‘B+’ and t.grade !=

‘B’ or t.grade is NULL));

**c)** select distinct s.dept\_name from student s, takes t

where s.id = t.id and s.dept\_name not in

(select s.dept\_name from takes t, student s

Where t.id = s.id and (grade = ‘F’ or grade =

‘C’));

**d)** select id, name from instructor

where id not in (select i.id from instructor i, advisor a, takes t

where i.id = a.i\_id and a.s\_id = t.id and t.grade = ‘A’);

select if, name from instructor

where id not in (select i.id from instructor I, teaches t, takes ta

where i.id = t.id and t.course\_id = ta.course\_id and ta/grade = ‘A’);

**e)** select distinct c.title from course c, section s, time\_slot t

where c.course\_id = s.course\_id and s.time\_slot\_id = t.time\_slot\_id and

t.end\_hr <= 13;