Tutorial 6
SQL

Classroom Exercise

Question 1

(i)

```
SELECT      Pname
FROM        PROF, DEPT
WHERE       DEPT.Dname = PROF.Dname AND Numphds < 50;
```

(iii)

```
SELECT      Sname, Dname
FROM        COURSE C, ENROLL E, MAJOR M, STUDENT S
WHERE       C.Cname = 'Database Systems' AND
            C.Dname =   E.Dname AND C.Cno = E.Cno AND
            E.Sid = M.Sid  AND   E.Sid = S.Sid;
```

(iv)

```
SELECT      Sid, Sname, GPA
FROM        STUDENT S
WHERE       NOT EXISTS
                (SELECT     C.CID
                FROM        COURSE C
                WHERE       Dname = 'Civil Engineering'
                EXCEPT
                SELECT      E.CID
                FROM        ENROLL E
                WHERE       Dname = 'Civil Engineering'
                            AND E.Sid = S.Sid);
```

Question 2

(i)

```
SELECT      DISTINCT wa1.issueID, wa1.articleID
FROM        WordAppears wa1, WordIs wi1, WordAppears wa2, WordIs wi2
WHERE       wa1.issueID = wa2.issueID AND wa1.articleID = wa2.articleID
            AND wa1.wordID = wi1.wordID AND wa2.wordID = wi2.wordID
            AND wi1.wordText = 'politician' AND
            wi2.wordText = 'corruption';
```

Question 3

(b) Find the names of all employees in the database who live in the same cities and on the same streets as do their managers. Assume that all people work for at most one company. Each company has at most one manager, who is also an employee of the same company.

Solution:

```
SELECT p.employee-name
FROM employee p, employee r, manages m
WHERE p.employee-name = m.employee-name
AND m.manager-name = r.employee-name
AND p.street = r.street AND p.city = r.city;
```