a. Retrieve the names of all the courses along with the name of the department taught during the fall of 2007.

b. Retrieve the names of the instructors who teach the courses of CS department.

c. Retrieve the course names and the grades obtained in each course by the student Smith.

7.7. In SQL, specify the following queries on the database in Figure 5.5 using the concept of nested queries and other concepts described in this chapter.

a. Retrieve the names of all employees who work in the department that has the employee with the highest salary among all employees.

b. Retrieve the names of all employees whose supervisor's supervisor has '888665555' for Ssn.

c. Retrieve the names of employees who make at least $10,000 more than the employee who is paid the least in the company.

7.8. Specify the following views in SQL on the COMPANY database schema shown in Figure 5.5.

a. A view that has the department name, manager name, and manager salary for every department

b. A view that has the employee name, supervisor name, and employee salary for each employee who works in the 'Research' department

c. A view that has the project name, controlling department name, number of employees, and total hours worked per week on the project for each project

d. A view that has the project name, controlling department name, number of employees, and total hours worked per week on the project for each project *with more than one employee working on it*

7.9. Consider the following view, DEPT_SUMMARY, defined on the COMPANY database in Figure 5.6:

```
CREATE VIEW   DEPT_SUMMARY (D, C, Total_s, Average_s)
AS SELECT     Dno, COUNT (*), SUM (Salary), AVG (Salary)
FROM          EMPLOYEE
GROUP BY      Dno;
```

State which of the following queries and updates would be allowed on the view. If a query or update would be allowed, show what the corresponding query or update on the base relations would look like, and give its result when applied to the database in Figure 5.6.

a.
```
SELECT   *
FROM     DEPT_SUMMARY;
```

b.
```
SELECT   D, C
FROM     DEPT_SUMMARY
```

```
    WHERE     TOTAL_S > 100000;

c.  SELECT    D, AVERAGE_S
    FROM      DEPT_SUMMARY
    WHERE     C > ( SELECT C FROM DEPT_SUMMARY WHERE D = 4);

d.  UPDATE    DEPT_SUMMARY
    SET       D = 3
    WHERE     D = 4;

e.  DELETE    FROM DEPT_SUMMARY
    WHERE     C > 4;
```