1. Specify the following queries in SQL on the database schema of figure1.

a. Retrieve the name of all senior students majoring in 'COSC' (Computer Science).

b. Retrieve the names of all courses taught by professor King in 1985 and 1986.

c. For each section taught by Professor King, retrieve the course number, semester, year, and number of students who took the section.

d. Retrieve the name and transcript of each senior student (Class=5) majoring in 'COSC'. A transcript includes course name, course number, credit hours, semester, year, and grade for each course completed by the student.

e. Retrieve the names and major departments of all A students (students who have a grade of A in all their courses).

f. Retrieve the names and major departments of all students who do not have a grade of A in any of their courses.

Table: STUDENT			
Name	**StudentNumber**	Class	Major

Table: COURSE			
CourseName	**CourseNumber**	CreditHours	Department

Table: PREREQUISITE	
CourseNumber	**PrerequisiteNumber**

Table: SECTION				
SectionIdentifier	CourseNumber	Semester	Year	Instructor

Table: GRADE_REPORT		
StudentNumber	**SectionNumber**	Grade

Figure 1

2. Specify the following queries in SQL on the database schema of figure2.

a. Retrieve the names of all employees in department 5 who work more than 10 hours per week on the 'ProjectX' project.
b. List the names of all employees who have a dependent with the same first name as themselves.
c. Find the names of all employees who are directly supervised by 'Franklin Wong'.
d. For each project, list the project name and the total hours per week (by all employees) spent on that project.
e. Retrieve the names of all employees who work on every project.
f. Retrieve the names of all employees who do not work on any project.
g. Retrieve the average salary of all female employees.
h. Find the names and addresses of all employees who work on at least one project located in Houston but whose department has no location in Houston.
i. List the last names of all department managers who have no dependants.

Table: EMPLOYEE
FNAME | LNAME | **SSN** |BDATE | ADDRESS | SEX | SALARY | SUPERSSN | DNUM

Table: DEPARTMENT
DNAME | **DNUMBER** | MGRSSN | MGRSTARTDATE

Table: DEPT_LOCATIONS
DNUMBER | **DLOCATION**

Table: WORKS_ON
ESSN | **PNUM** | HOURS

Table: PROJECT
PNAME | **PNUMBER** | PLOCATION | DNUM

Table: DEPENDENT
ESSN | **DEPENDENT_NAME** | SEX | BDATE | RELATIONSHIP

Figure 2