**Problem 1** 15 points
Write one SQL query to find the name and ID of each student from 'Statistics' department whose last name begins with the letter 'S' and who has **not** taken at least 9 out of all courses offered by 'Cybernetics' department.

**Problem 2** 15 points
Find names and salaries of instructors who never taught a course offered by her or his department. (one query)

**Problem 3** 7 points
Rank order all students by total credit.

**Problem 4** 5 points
Create a table *prereq1* that has the same column names and column types as the table *prereq* and the same records as the table *prereq*.

**Problem 5** 3 points
Delete records: with
course_id=133 and prereq_id=852
and
course_id=634 and prereq_id=864
from the table *prereq1*.
You can use 2 sql statements.

**Problem 6** 17 points
Note: you must solve Problem 5 before working on Problem 6, otherwise you can get an infinite loop.
Write a query to find out which courses in the table *prereq1* are prerequisites, *whether directly or indirectly*, for any course. The query should also show how many intermediate levels are between the prerequisite and the course.

**Problem 7** 25 points
Write a recursive query to check if a pre-requisite table has cycles, that is, courses that are prerequisites, possible indirectly, of themselves.
The query should return the list of IDs of courses that are prerequisites, possible indirectly, of themselves, or an empty result set, if there are no cycles.
a. Run the query against prereq table
b. Run the query against prereq1 table

**Problem 8** 3 points
Delete the table *prereq1*.