Question 1
Consider the following database schema. Write the following queries in Relational Algebra.

COURSES = \{CourseNo, Title, Credits\}
OFFERINGS = \{CourseNo, Section, Semester, Year, Prof-name, Schedule, RoomNo\}
PROFS = \{Prof-name, Department, Building, Office-No, Phone-No\}
STUDENTS = \{IDNo, Name, DOB, Department\}
REGISTRATION = \{IDNo, CourseNo, Section, Semester, Year \}

Q1: List all the information regarding the course offerings for CSC 130.
Q2: List the titles of all courses that Professor Stilgar is teaching.
Q3: List all courses (Titles and number of credits) taught by Physics professors.
Q4: List all Mathematics professors who do not teach MAT 110 this semester.
Q5: List the names and ID numbers of students taking a course (at least one) with Professor Stilgar this semester.
Q6: List the names and ID numbers of students taking all courses Professor Stilgar is teaching this semester.

Question 2
Let \( r \) be a relation with only one column \( A \). Write a query in (pure) relational algebra to find the largest value in \( r \) (assume attribute values are numerical). DO NOT USE aggregate functions (such as min, max, etc...).