SQL: Exercises with Set Operations

Schema

Student(sID, surName, firstName, campus, email, cgpa)
Course(dept, cNum, name, breadth)
Offering(oID, dept, cNum, term, instructor)
Took(sID, oID, grade)

Offering[dept, cNum] ⊆ Course[dept, cNum]
Took[sID] ⊆ Student[sID]
Took[oID] ⊆ Offering[oID]

Questions

1. Assuming bag semantics, compute the following:
   (a) \{1, 1, 1, 3, 7, 7, 8\} ∪ \{1, 5, 7, 7, 8\}
   
   (b) \{1, 1, 1, 3, 7, 7, 8\} ∩ \{1, 5, 7, 7, 8\}
   
   (c) \{1, 1, 1, 3, 7, 7, 8\} − \{1, 5, 7, 7, 8\}

2. Write a query to find all terms when Jepson and Suzuki were both teaching. Include duplicates of the same term.
3. Find the sID of students who have earned a grade of 85 or more in some course, or who have passed a course taught by Atwood. Use views for the intermediate steps.

4. Find all terms when csc369 was not offered.