SQL: Exercises with Set Operations

Schema

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

Questions

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

   (b)  \{1, 1, 1, 3, 7, 7, 8\} ∩ \{1, 5, 7, 7, 8, 8\}

   (c)  \{1, 1, 1, 3, 7, 7, 8\} − \{1, 5, 7, 7, 8, 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.