Sample Questions on SQL

The relational schema for student course registration are as follows

Parents-S(F-NID, M-NID, Sid, F-name, M-name, street, city, income)
Student (Sid, name, street, city. Mobile, email, CGPA, age, tot-cred, dept-id)
Takes (course-id, Sid, semester, year, gradepoint)
Course (course-id, title, credit-hour)
Parents-T(F-NID, M-NID, Tid, F-name, M-name, street, city, income)
Teacher (Tid, name, designation, street, city, Mobile, email, salary, date-of-birth, dept-id)
Teach (course-id, Tid, semester, year, remuneration)

Q. 1: Write SQL expression to find Sid, F-NID, M-NID, mobile, email and age of all students whose tot-cred is greater than or equal to 130.

Q. 2: Write SQL expression to find F-NID, Sid, course-id and title for all students whose parents live in Dhaka.

Q. 3: Write SQL expression to find Sid, name, street, city and average gradepoint of each student.

Q. 4: Find city and street wise average, maximum and minimum income of parents (of students) living in Dhaka or Rajshahi and average income higher than 500000.

Q. 5: Write SQL expression to find Sid, name, course-id and title of all students who have taken any course (course-id) taken by Abid in Fall 2018.

Q. 6: Write SQL expression to find Sid, name, course-id and title of all students who have taken all courses taken by Abid in Fall 2018.

Q. 7: Increase salary by 10% of all teachers who taught 3 credit courses in Spring 2024.

Q. 8. Some students have become teachers. Write SQL statement to insert id, name, street, city, mobile and email into teacher table for those students with cgpa 4 and tot-cred 130. Other attributes will be null.

Q.9 Update the salary of all teachers for Spring 2023 into null. Then update their salary by the sum of all remuneration of courses taught by each teacher in Spring 2023.

Q10: Update the tot-cred of all students by the sum of all credits of courses taken by each student and gradepoint is neither null nor 'F'.

Q11: Find all the brothers (With same F-NID and teacher or students) of Tid = 1001.

Q12: Find Sid, name, department id of all students with the same teacher name in the same department.

Given the relational schema as follows:

branch(*branch name*, *branch city, assets*)
customer (*customer name*, *customer street, customer city*)
loan (*loan number*, *branch name, amount*)
borrower (*customer name*, *loan number*)
account (*account number*, *branch name, balance*)
depositor (*customer name*, *account number*)
Q. Write SQL for the following:

a. Insert all the loans of branch name = "NSU" to the account relation as loan number will be account number and amount will be balance.
b. Delete all loans of customers who lives in 'Gazipur'.
c. Find the list of customer name, branch name and branch city of all customers who lives in 'Dhaka'.
d. Find the list of customer name, branch name and branch city of all customers who have accounts in all branches in comilla city.
e. Add 10% benefit to all accounts with balance less than 50000 and 5% benefit to others.
f. Find customer name and city of all customers who have both loan and account.
g. Find customer name and city of all customers who have account but no loan.

Given the relational schema as follows:

employee (*person name, street, city*)
works (*person name, company name, salary*)
company (*company name, city*)

Q. Write SQL for the following:
a. Find person name, street, employee.city, company name, company.city for all employees salary greater than 10000.
b. Find person name, street and city of all employees who live in the same city as 'Mr. Akib' lives.
c. Find all person name of all employees who live in the same city as the company.

Q: Given the following relational schema: 5
branch(*branch name, branch city, assets*)
customer (*customer name, customer street, customer city*)
borrower (*customer name, loan number*)
loan (*loan number, branch name, amount*)

Find each customer city and the total amount of loan of that customer city. Output:
customer city, loan-amount.

Q Given the following relational schema: 5
branch(*branch name, branch city, assets*)
customer (*customer name, customer street, customer city*)
depositor (*customer name, account number*)
account (*account number, branch name, balance*)

a. Delete all accounts of customers who lives in 'Sylhet'.
b. Gove 10% profit to all accounts of customers living in Bhola and 5% profit to
    customers living in Dhaka and 6% to others.