Q1. Explain the different types of joins in SQL.

Q2. What is the PRIMARY KEY in SQL?

Q3. What are constraints?

Q4. What’s the difference between DELETE and TRUNCATE statements in SQL?

Q5. What is query optimization?

Q6. Given the tables below, select the top three departments with at least ten employees and rank them according to the percentage of their employees making over $100,000 in salary.

Q7. Given a users table, write a query to get the cumulative number of new users added by day, with the total reset every month.

Q8. Given a table of product subscriptions with a subscription start date and end date for each user, write a query that returns true or false whether or not each user has a subscription date range that overlaps with any other user.

Q9. Given a table of students and their SAT test scores, write a query to return the two students with the closest test scores with the score difference.

Q10. We’re given two tables, a users table with demographic information and the neighborhood they live in and a neighborhoods table. Write a query that returns all of the neighborhoods that have 0 users.

Q11. Given a table of transactions and products, write a query to return the product id, product price, and average transaction price of all products with price greater than the average transaction price.

Q12. Let’s say we have two tables, transactions and products. Hypothetically the transactions table consists of over a billion rows of purchases bought by users.