1. In SQL Server, assuming you can find the result by using both joins and subqueries, which one would you prefer to use and why?

Depends, generally speaking, join is faster than subquery especially in MySQL. But subquery is easier to understand. In addition, in some cases, when you want to join two huge table, it can faster to use subquery to filter useless elements from two tables before join.

1. What is CTE and when to use it?

CTE specifies a temporary named result set which can be used later. You can use it when you need use a result set from a simple query for multiple times.

1. What are Table Variables? What is their scope and where are they created in SQL Server?

Table variable is a special data type used to store a result set for processing at a later time. It starts from the declaration and ends at the end of batch. They are created in tempdb

1. What is the difference between DELETE and TRUNCATE? Which one will have better performance and why?

Delete will reseed identity value and delete all data from table while Delete will not reseed identity value.

TRUNCATE has better performance since it directly deallocates all data page of a table while delete need to delete rows one by one and need to write log for each row.

1. What is Identity column? How does DELETE and TRUNCATE affect it?

Identity column is the value managed by database system for each row. Delete will not reseed it while truncate will reseed it.

1. What is difference between “delete from table\_name” and “truncate table table\_name”?

Delete will delete rows from table one by one and write log for each row. While truncate will directly deallocate all data page from that table.