Answer following questions

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?

I would prefer using join because in most case it is more efficient when using system resources.

2. What is CTE and when to use it?

CTE stand for Common table expression, it is a temporary name for the result set to make a query easier to read. CTE must be used in the next query without any breaks. Also, It can be used recursively.

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

Table variables are local variables that can be stored temporarily. The scope of the table variables is the batch in which it is declared, it must be used immediately after its declaration.

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

Delete will cause triggers that exist on tables to fire, while truncate will not. Delete is a DML command. Truncate has a better performance, since it removes the whole data page and records a single entry for the transaction. Also, it locks a single page causing it to be much faster than Delete. Delete removes rows one row at a time while recording each row entries into the the transaction logs. This causes Delete to use more databases resources since it requires more locks when deleting rows. Delete can use where, while truncate cannot.

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

The identity column is a special column typically used a primary key for tables. When the Delete clause is used, the identity will not be affected and will continue enumerating from where it last ended, while truncate will cause the identity column to reseed and restart back to 1.

6. What is difference between "delete from table name" and "truncate table table name"?

When truncate truncate table table_name is executed, table will immediately be removed without filtration and logs the data page in the transaction log. While, when "delete from table_name" is executed, the table will be deleted row by row with the option to filter since it operates on individual rows.

11. How do you remove the duplicates record of a table?

You must you the DISTINCT keyword on the Select clause.