1. What is a result set?

   An SQL result set is a set of rows from a database, as well as metadata about the query such as the column names, and the types and sizes of each column. Depending on the database system, the number of rows in the result set may or may not be known.

2. What is the difference between Union and Union All?

   UNION ALL *keeps all of the records* from each of the original data sets, UNION *removes any duplicate records*. UNION first performs a sorting operation and eliminates of the records that are duplicated across all columns before finally returning the combined data set.

3. What are the other Set Operators SQL Server has?

   UNION   Combine two or more result sets into a single set, without duplicates.

   UNION ALL   Combine two or more result sets into a single set, including all duplicates.

   INTERSECT   Takes the data from both result sets which are in common.

   EXCEPT   Takes the data from first result set, but not the second

4. What is the difference between Union and Join?

   Union will be faster, as it simply passes the first SELECT statement, and then parses the second SELECT statement and adds the results to the end of the output table.

5. What is the difference between INNER JOIN and FULL JOIN?

   Inner join returns only the matching rows between both the tables, non-matching rows are eliminated. Full Join or Full Outer Join returns all rows from both the tables (left & right tables), including non-matching rows from both the tables.

6. What is difference between left join and outer join?

   The key difference between a left outer join, and a right outer join is that in a left outer join it's the table in the FROM clause whose all rows are returned.

7. What is cross join?

    The CROSS JOIN is used to generate a paired combination of each row of the first table with each row of the second table. This join type is also known as cartesian join

8. What is the difference between WHERE clause and HAVING clause?

    The WHERE clause is applied first to the individual rows in the tables or table-valued objects in the Diagram pane. Only the rows that meet the conditions in the WHERE clause are grouped.

    The HAVING clause is then applied to the rows in the result set. Only the groups that meet the HAVING conditions appear in the query output. You can apply a HAVING clause only to columns that also appear in the GROUP BY clause or in an aggregate function.

9. Can there be multiple group by columns?

    Group By X, Y means put all those with the same values for both X and Y in the one group.