1.

trigger	stored procedure
trigger is a special kind of procedure that executes only when some triggering event such as INSERT, UPDATE, or DELETE operations occur in a table. It Protection of data syntax to define a trigger: CREATE TRIGGER TRIGGER_NAME cannot return values can execute automatically based on the events	A procedure is a SQL statements written to perform specified tasks. It helps in code re-usability and saves time and lines of code prevent SQL Injection it has 3types SP --Builtin SP Sp_bindrule,sp_helptext ,sp_rename sp_helpconstraint ,sp_addtype ,sp_bindefault --User Defined --Trigger (special type of stored procedure) --Can't Call --Can't Send parameter --Trigger Table [Insert Update delete] syntax to define a procedure: CREATE PROCEDURE PROCEDURE_NAME return values can be invoked explicitly by the user

2.

stored procedure	functions
sp may or may not return a value Sp can have input/output parameters We cant use sp in SQL statements like INSERT, UPDATE, DELETE Improved security measures Client/server traffic is reduced. Pre-compiled Execution The execution can be re-used	function must return a value function only has input parameters we can use functions with INSERT, UPDATE, DELETE functions will be compiled every time

3.

drop statement	delete statement
DELETE is a DML command and is used to delete one or more rows from a table DELETE is used only to remove data from the table, not to remove a table from the database or not to delete the table structure. Can returns the total number of rows removed from the table. Syntax: DELETE FROM <table_name> WHERE <condition>	DROP TABLE is also a command. It is used to remove data stored in a table as well as a table structure from a database. The DROP TABLE statement removes the table's structure, data, indexes, constraints, and triggers. When a table is dropped, any constraints or triggers associated with it, are also dropped. A table that is referenced by a FOREIGN KEY constraint cannot be dropped using the DROP TABLE statement. The referencing FOREIGN KEY constraint or the referencing table must be dropped first Syntax: DROP TABLE <table_name>

4.

select statement	select into statement
statement returns a result set of records, from one or more tables returns data in the form of a result table. These result tables are called result-sets Syntax: SELECT column1, column2….. FROM table_name	statement in SQL is generally used for copy purposes. We can copy the whole data from one table into another table using a single command. SELECT INTO statement could be used even if the target table doesn't exist as it creates the target table if it doesn't exist Syntax: SELECT column1, column2..... INTO TARGET_TABLE from SOURCE_TABLE

5.

DDL(Data Definition Language): consists of the SQL commands that can be used to define the database schema. set of SQL commands used to create, modify, and delete database structures but not data. this commands are normally not used by a general user, who should be accessing the database. List of DDL: Create, drop, alter, truncate, comment, rename	DML(Data Manipulation Language): It is the component of the SQL statement that controls access to data and to the database deals with the manipulation of data present in the database List of DML commands: Insert,Update,Delete,Lock,Call Explain plan
DCL(Data Control Language): commands such as GRANT and REVOKE which mainly deal with the rights, permissions, and other controls of the database system. List of DCL commands: **GRANT**: gives user access privilege REVOKE: withdraws the user's access privileges given by using the GRANT command	DQL(Data Query Language): used for performing queries on the data within schema objects. The purpose of the DQL Command is to get some schema relation based on the query passed to it. allows getting data from the database to perform operations with it. List of DQL: select

6.

Table valued statement	multi statement function
where the function body just contains one line of select statement State return table and the return table's definition will be based on the function select statement. don't need to specify the structure of the return table. do not use the begin/end syntax. Faster than multi statement	return syntax explicitly specifies the structure of the return table. This is done by declaring a table variable that will be used to store and accumulate the rows that are returned as the value of the function. use the begin/end syntax. Slower than table value

7.

Varchar(50)	varchar(max)
Data type can stores a maximum of 50 characters. keeps the 50 character space even if you don't store 50 characters	Data type store up to 2 GB of data in this data type. flexible to any size. size doesn't matter

8.

SQL	windows Authentication
Structured Query Language (SQL) is a standardized programming language that is used to manage relational data base and perform various operations on the data in them. Allows SQL Server to support environments with mixed operating systems, where all users aren't authenticated by a Windows domain. Allows users to connect from unknown or untrusted domains. For instance, an application where established customers connect with assigned SQL Server logins to receive the status of their orders.	Windows authentication means the account resides in Active Directory for the Domain more secure in SQL Server databases than database authentication, since it uses a certificate-based security mechanism. Windows-authenticated logins pass an access token instead of a name and password to SQL Server

9.

Inline function	view
the body of the function will have only a Single Select Statement prepared with the return statement. And here, we need to specify the Return Type as Table by using the return table statement is like a view. Both are wrapped for a stored SELECT statement. An inline table-valued user-defined function retains the benefits of a view and adds parameters. As with a view, if the SELECT statement is updatable, then the function is also updatable	is the result set of a stored query on the data, which the database users can query just as they would in a persistent database collection object can represent a subset of the data contained in a table. Views can join and simplify multiple tables into a single virtual table. Views can hide the complexity of data. Views take very little space to store.

10.

Identity	unique Constraint
Identity column of a table is a column whose value increases automatically. The value in an identity column is created by the server. A user generally cannot insert a value into an identity column. Identity column used to uniquely identify the rows in the table. in many cases an identity column is used as a primary key.	UNIQUE constraint ensures that all values in a column are different. A PRIMARY KEY constraint is a UNIQUE constraint. you can have many UNIQUE constraints per table but only one PRIMARY KEY constraint per table.