Part 2

(1) batch : is a collection of unrelated sql commands that run together

-transactions: commands that guaranteed to succeed or fail , if half of commands fails they all fails.

-script:collaction of subquires that you want to run together and they unrelated and we can't run it together we put go between them

(2) We can call a stored procedure from inside another stored procedure but we can't directly call trigger in other trigger

-We can execute a stored procedure any where we want using exec command, but a trigger can only be executed after event is fired on the table on which the trigger is defined

-we can pass parameters to stored procedures but we can’t pass parameters to trigger

-procedures can return values but triggers can’t

(3) Functions can be called from Procedure whereas Procedures cannot be called from Function.

- Procedure allows (INSERT,UPDATE,DELETE) statement but Function allows only SELECT statement in it.

-Functions can have input parameters only but Procedures can have input/output parameters

- Stored Procedures cannot be used in the WHERE/HAVING/SELECT section but Function can be.

(4) Delete is DML, Truncate is DDL

- The SQL DROP command is used to remove an object from the database. If we drop a table, all the rows in the table is deleted and the relationship is removed from the database. Once a table is delete the table we cannot get it back

- deletes only the rows from the table based on the condition given in the where clause or deletes all the rows from the table if no condition is specified. But it does not free the space containing the table.

- This command is used to delete all the rows from the table and free the space containing the table.

(5) The SELECT INTO statement copies data from one table into a new table.

-Select take data from one table

The new table will be created with the same column-names and types of the old table but without the constraints

(6) The scope or lifetime of the local variable is within a block or procedure..

DECLARE @Variable1

Global variables can't be defined in sql server >

(7) CAST and CONVERT are both used to convert data from one data type to another

Cast is easier to read but convert is heigher performance

Convert converts the date to more than one form

(8) -DDL

Data Definition Language statements are used to define the database structure or schema.

CREATE-ALTER - DROP -TRUNCATE -COMMENT - RENAME

-DML

Data Manipulation Language (DML) statements are used for managing data within schema objects.

SELECT - INSERT -UPDATE - DELETE - MERGE - CALL

-TCL  
Transaction Control (TCL) statements are used to manage the changes made by DML statements. It allows statements to be grouped together into logical transactions.

COMMIT - ROLLBACK – COMMIT

-DCL  
Data Control Language (DCL) statements.:

GRANT - gives user's access privileges to database

REVOKE - withdraw access privileges given with the GRANT command

(9) The RAW mode takes the query result and transforms each row  
in the result set into an XML element with a generic  
identifier row as the element tag and the columns in the  
SELECT as attributes.

The AUTO mode returns query results in a simple   
tree.

(10) Multi-statement table valued function definition specifies RETURNS along with the definition of TABLE VARIABLE. The function body might consists of multiple statements and one of which will populate this TABLE VARIABLE. And the scope/life of this TABLE VARIABLE is limited to only this function - outside of this function it is not available.

-A table valued user defined function returns a result set/row set instead of a single/scalar value. It can be invoked in FROM or JOIN clause of a SELECT query. Table valued function can be good alternative to a VIEW as VIEW does not allow parameters whereas table valued functions allow parameters. Sometimes they are called as ‘Parameterized Views’*.*

(11) Varchar(50) you can only write 50 letters each 1 byte per letter

Varchar(max) it unlimited (2 bytes per character)

(12) Datetime2 has a date range of "0001 / 01 / 01" through "9999 / 12 / 31" has nanoseconds

Datetime type only supports year 1753-9999. Has millisecond

Date time offset : 01/01/0001 to 12/31/9999 and it detect the location has nanoseconds

(13) we can install only one default instance but can install multiple named instances.

We can enter server name as . in default instance but must enter the name in named instances

(14) If you want to track what a particular user is doing, then using the windows authentication is good.

Using the windows tools to administer users is much more powerful than SQL, but the link between the two is tenuous, for instance if we remove a windows user then the related data within SQL isn't updated.

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|  | (15) Clustered Index:Only one per table and is Faster to read than non clustered as data is physically stored in index order  Non Clustered Index:Can be used many times per table and Quicker for insert and update operations than a clustered index  (16) CUBE generates a result set that shows aggregates for all combinations of values in the selected columns.  ROLLUP generates a result set that shows aggregates for a hierarchy of values in the selected columns.  (17) Using the identity attribute for a column, we can generate auto-incrementing numbers (which as often used as a primary key). With Sequence, we can attach to a table column while inserting. Unlike identity, the next number for the column value will be retrieved from memory rather than from the disk – this makes Sequence significantly faster than Identity. |
|  |  |

(18) The only changes that can be made by the statements in the function are changes to objects local to the function, such as local cursors or variables. Modifications to database tables, operations on cursors that are not local to the function generating as a result set that is returned to the user are examples of actions that cannot be performed in a function.

(19) Temporary Tables are real tables we can do CREATE indexes If we have large amounts of data for which accessing by index will be faster in the temporary tables

-Table variables can have indexes by using PRIMARY KEY or UNIQUE constraints. (If we want a non-unique index just include the primary key column as the last column in the unique constraint. If we don't have a unique column, we can use an identity column.)

-Temp tables might result in stored procedures being recompiled, perhaps often. Table variables will not.

-we can create a temp table using SELECT INTO

-Global Temp Tables (##tmp) are another type of temp table available to all users.

(20) Row number () : This function will assign a unique id to each row returned from the query.

-Rank() : This function will assign a unique number to each similer rows, but it leaves a gap between the groups.