1. **The sales tax rate for a state just changed. How would you update the state sales tax table to reflect the changes? Assume that this table has an ID column, an RATE column, and a STATE column.**

UPDATE dbo.SalesTax   
SET RATE \*= new%  
WHERE STATE = 'State';

1. **The Revenue Division has requested that you provide a report on what the actual sales taxes would have been for all orders in the past year, assuming the retroactivity of the new sales tax rate. How would you calculate this?**

Create a new table with SELECT INTO with the data from the old table and update the new table with the new sales tax.

1. **Explain how the proprietary assignment update command works.**

the proprietary assignment update command updates data in a table and assigns values to variables at the same time.

1. **What is one very important purpose of the MERGE SQL statement? What is ETL (not in book)?**

One important purpose of MERGE is to update rows in one step. Extract-Transform-Load (ETL) consists of three functions that are combined into one tool to pull data out of one database and place it into another.

1. **What are the semantics of MERGE?**

The semantics of MERGE are based off a JOIN. You specify the target table name in the MERGE clause and the source table name in the USING clause. You define a merge condition by specifying a predicate in the ON clause. The merge condition defines which rows in the source table have matches in the target and which don’t. You define the action to take when a match is found in a clause called WHEN MATCHED THEN, and the action to take when a match is not found in the WHEN NOT MATCHED THEN clause.

1. **Write a typical INSERT OUTPUT statement.**

When you need to insert a row set into a table with an identity column, and you need to get back all identity values that were generated.

INSERT INTO \_\_\_\_ OUTPUT \_\_\_\_ SELECT \_\_\_\_ FROM \_\_\_\_WHERE\_\_\_\_=\_\_\_\_

1. **Write a typical UPDATE OUTPUT statement.**

UPDATE\_\_\_\_ SET\_\_\_\_+=\_\_\_\_ OUTPUT\_\_\_\_ WHERE\_\_\_\_=\_\_\_\_

1. **Write a typical DELETE OUTPUT statement.**

DELETE FROM\_\_\_\_ OUTPUT\_\_\_\_ WHERE\_\_\_\_>\_\_\_\_

1. **Write a typical MERGE OUTPUT statement.**

MERGE INTO\_\_\_\_   
USING\_\_\_\_   
ON TGT.\_\_\_\_ = SRC.\_\_\_\_   
WHEN MATCHED THEN UPDATE SET \_\_\_\_   
WHEN NOT MATCHED THEN INSERT\_\_\_\_ VALUES\_\_\_\_ OUTPUT\_\_\_\_

1. **What is nested DML?**

Nested Data Manipulation Language (DML) allows a query to direct only a subset of modified rows to a table. This allows the query to directly insert into the final table only the subset of rows from a full set of modified rows