**Chapter 7 Review Questions**

1) Users do not need to know how data is physically structured on disk or what methods the DBMS uses to manipulate the data when updating and retrieving data. The DBMS is solely responsible for these mechanisms and manipulations.

4) When several users update the same database at the same time, this is known as concurrent update.

7) A transaction is a series of steps completed by a database management system to complete a single user task; for the database to stay in a correct state, the DBMS must complete all transaction steps successfully or none at all.

11) Recovery is the method of restoring a database to a known-to-be-correct state from a known-to-be-incorrect state.

20) Views can function as protection measures by limiting the data that users have access to. Some data can be queried and modified by users, while the rest of the table or database is hidden and unavailable. Regardless of the permissions in place on the underlying table, permission to access the subset of data in a view must be given, refused, or revoked (s).