WEEK 11. Transaction Management – Chapter 15

Self-Check Questions

1. Which of the ACID properties means that the entire transaction must be completed or the database is restored the state it was in before the transaction started:
   a. Atomicity
   b. Consistency preserving
   c. Isolation
   d. Durability

2. Which of the following SQL statement may appear in the code for a transaction:
   a. ROLLBACK
   b. COMMIT
   c. BEGIN TRANSACTION
   d. All of the above

3. The ACID properties are insured by the following services of the DBMS:
   a. Concurrency control
   b. Recovery
   c. Data dictionary
   d. Concurrency control and recovery

4. In two phase locking protocol,
   a. A transaction only acquires a lock after the previously acquired lock has been released
   b. A transaction acquires locks as needed. After it starts releasing locks, it does not acquire new locks
   c. A transaction acquires all needed locks at once, then releases them after completion
   d. A transaction locks the full database, then release the locks.

5. Which of the following problems is not caused by insufficient concurrency control?
   a. Lost update
   b. Hot Spot
   c. Non Repeatable read
   d. Uncommitted dependency

Discussion Questions

6. Provide an example of a workflow with high task complexity and another example with high task structure.