



Department of Computer Science and Engineering

CS8492 - DATABASE MANAGEMENT SYSTEMS

Unit III - MCQ Bank

1. Consider money is transferred from (1) account-A to account-B and (2) account-B to account-A.

Which of the following form a transaction?

- a. Only 1
- b. Only 2
- c. Both 1 and 2 individually
- d. Either 1 or 2

Answer: c

2. A transaction is delimited by statements (or function calls) of the form _____

- a) Begin transaction and end transaction
- b) Start transaction and stop transaction
- c) Get transaction and post transaction
- d) Read transaction and write transaction

Answer: a

3. Identify the characteristics of transactions

- a) Atomicity
- b) Durability
- c) Isolation
- d) All of the mentioned

Answer: d

4. The database system must take special actions to ensure that transactions operate properly without interference from concurrently executing database statements. This property is referred to as

- a) Atomicity
- b) Durability

- c) Isolation
- d) All of the mentioned

Answer: c

5. Transaction processing is associated with everything below except

- a) Producing detail summary or exception reports
- b) Recording a business activity
- c) Confirming an action or triggering a response
- d) Maintaining a data

Answer: c

6. If an transaction is performed in a database and committed, the changes are taken to the previous state of transaction by

- a) Flashback
- b) Rollback
- c) Both Flashback and Rollback
- d) Cannot be done

Answer: d

7. Each modification done in database transaction are first recorded into the

- a) Harddrive
- b) Log
- c) Disk
- d) Datamart

Answer: b

8. When the transaction finishes the final statement the transaction enters into

- a) Active state
- b) Committed state
- c) Partially committed state
- d) Abort state

Answer: c

9. In order to maintain transactional integrity and database consistency, what technology does a

DBMS deploy?

- a) Triggers
- b) Pointers
- c) Locks
- d) Cursors

Answer: c

10. A lock that allows concurrent transactions to access different rows of the same table is known as

- a) Database-level lock
- b) Table-level lock
- c) Page-level lock
- d) Row-level lock

Answer: d

11. Which of the following protocols ensures conflict serializability and safety from deadlocks?

- a) Two-phase locking protocol
- b) Time-stamp ordering protocol
- c) Graph based protocol
- d) None of the mentioned

Answer: b

12. If transaction T_i gets an explicit lock on the file F_c in exclusive mode, then it has an _____ on all the records belonging to that file.

- a) Explicit lock in exclusive mode
- b) Implicit lock in shared mode
- c) Explicit lock in shared mode
- d) Implicit lock in exclusive mode

Answer: d

13. All lock information is managed by a _____ which is responsible for assigning and policing the locks used by the transactions.

- a) Scheduler
- b) DBMS

- c) Lock manager
- d) Locking agent

Answer: c

14. Which of the following is a procedure for acquiring the necessary locks for a transaction where all necessary locks are acquired before any are released?

- a) Record controller
- b) Exclusive lock
- c) Authorization rule
- d) Two phase lock

Answer: d

15. A system is in a _____ state if there exists a set of transactions such that every transaction in the set is waiting for another transaction in the set.

- a) Idle
- b) Waiting
- c) Deadlock
- d) Ready

Answer: c

16. The deadlock state can be changed back to stable state by using _____ statement.

- a) Commit
- b) Rollback
- c) Savepoint
- d) Deadlock

Answer: b

17. When transaction T_i requests a data item currently held by T_j , T_i is allowed to wait only if it has a timestamp smaller than that of T_j (that is, T_i is older than T_j). Otherwise, T_i is rolled back (dies). This is

- a) Wait-die
- b) Wait-wound
- c) Wound-wait

d) Wait

Answer: a

18. When transaction T_i requests a data item currently held by T_j , T_i is allowed to wait only if it has a timestamp larger than that of T_j (that is, T_i is younger than T_j). Otherwise, T_j is rolled back (T_j is wounded by T_i). This is

- a) Wait-die
- b) Wait-wound
- c) Wound-wait
- d) Wait

Answer: c

19. The deadlock in a set of a transaction can be determined by

- a) Read-only graph
- b) Wait graph
- c) Wait-for graph
- d) All of the mentioned

Answer: a

20. Selecting the victim to be rolled back to the previous state is determined by the minimum cost.

The factors determining cost of rollback is

- a) How long the transaction has computed, and how much longer the transaction will compute before it completes its designated task
- b) How many data items the transaction has used
- c) How many more data items the transaction needs for it to complete
- d) All of the mentioned

Answer: d

21. _____ rollback requires the system to maintain additional information about the state of all the running transactions.

- a) Total
- b) Partial
- c) Time

d) Commit

Answer: b

22. Which of the following is/are the Database server functions?

i) Data management

ii) Transaction management

iii) Compile queries

iv) Query optimization

a) i, ii, and iv only

b) i, ii and iii only

c) ii, iii and iv only

d) All i, ii, iii, and iv

Answer: a

23. Which of the following is not the function of client?

a) Compile queries

b) Query optimization

c) Receive queries

d) Result formatting and presentation

Answer: b

24. _____ is a special type of stored procedure that is automatically invoked whenever the data in the table is modified.

a) Procedure

b) Trigger

c) Curser

d) None of the Mentioned

Answer: b

25. A concurrency-control policy such as this one leads to _____ performance since it forces transactions to wait for preceding transactions to finish before they can start.

a) Good

b) Average

- c) Poor
- d) Unstable

Answer: c

26. _____ are used to ensure that transactions access each data item in order of the transactions' _____ if their accesses conflict.

- a) Zone
- b) Relay
- c) Line
- d) Timestamps

Answer: d

27. In which scenario would you use the ROLLUP operator for expression or columns within a GROUP BY clause?

- a) To find the groups forming the subtotal in a row
- b) To create group-wise grand totals for the groups specified within a GROUP BY clause
- c) To create a grouping for expressions or columns specified within a GROUP BY clause in one direction, from right to left for calculating the subtotals
- d) To create a grouping for expressions or columns specified within a GROUP BY clause in all possible directions, which is cross-tabular report for calculating the subtotals

Answer: c

28. Which statement is true regarding external tables?

- a) The default REJECT LIMIT for external tables is UNLIMITED
- b) The data and metadata for an external table are stored outside the database
- c) ORACLE_LOADER and ORACLE_DATAPUMP have exactly the same functionality when used with an external table
- d) The CREATE TABLE AS SELECT statement can be used to unload data into regular table in the database from an external table

Answer: d

29. Constraint checking can be disabled in existing _____ and _____ constraints so that any data you modify or add to the table is not checked against the constraint.

- a) CHECK, FOREIGN KEY
- b) DELETE, FOREIGN KEY
- c) CHECK, PRIMARY KEY
- d) PRIMARY KEY, FOREIGN KEY

Answer: a

30. Problems occurs if we don't implement a proper locking strategy

- a) Dirty reads
- b) Phantom reads
- c) Lost updates
- d) Unrepeatable reads

Answer: d

31. By default sql server has _____ isolation level

- a) READ COMMITTED
- b) READ UNCOMMITTED
- c) SERIALIZABLE
- d) REPEATABLE READ

Answer: a

32. Which of the following statements is/are not true for SQL profiler?

- a) Enables you to monitor events
- b) Check if rows are being inserted properly
- c) Check the performance of a stored procedure
- d) ALL of the mentioned

Answer: c

33. Which of the following is the original purpose of SQL?

- a) To specify the syntax and semantics of SQL data definition language
- b) To specify the syntax and semantics of SQL manipulation language
- c) To define the data structures
- d) All of the mentioned

Answer: d

34. ANSI-standard SQL allows the use of special operators in conjunction with the WHERE clause.

A special operator used to check whether an attribute value is null is

- a) BETWEEN
- b) IS NULL
- c) LIKE
- d) IN

Answer: b

35. A lock that prevents the use of any tables in the database from one transaction while another transaction is being processed is called a

- a) Database-level lock
- b) Table-level lock
- c) Page-level lock
- d) Row-level lock

Answer: a

36. A condition that occurs when two transactions wait for each other to unlock data is known as a(n)

- a) Shared lock
- b) Exclusive lock
- c) Binary lock
- d) Deadlock

Answer: d

37. _____ means that data used during the execution of a transaction cannot be used by a second transaction until the first one is completed.

- a) Serializability
- b) Atomicity
- c) Isolation
- d) Time stamping

Answer: c

38. DBMS periodically suspends all processing and synchronizes its files and journals through the

use of

- a) Checkpoint facility
- b) Backup facility
- c) Recovery manager
- d) Database change log

Answer: a

39. Snapshot isolation is a particular type of _____ scheme.

- a) Concurrency-control
- b) Concurrency-allowance
- c) Redirection
- d) Repetition-allowance

Answer: a

40. Each of a pair of transactions has read data that is written by the other, but there is no data written by both transactions, is referred to as

- a) Read skew
- b) Update skew
- c) Write lock
- d) None of the mentioned

Answer: d