

1. A transaction that may not always complete its execution successfully is called (a) Terminated (b) Fail (c) Aborted (d) Committed
2. In serial execution a short transaction could get stuck behind a long transaction leading to, unpredictable delays in (a) Delay time (b) Process execution time (c) System Throughput (d) Response time
3. DBMS typically uses a protocol to achieve Lock based concurrency control (a) Locking protocol (b) TCP/IP protocol (c) Client Server protocol (d) Dialup protocol
4. allow us to identify a point in a transaction and selectively roll back operation carried out after this point (a) State (b) Commit (c) Rollback (d) Savepoint
5. Who can take several steps to tune recovery subsystems (a) System Analyst (b) Application programmer (c) Client (d) DBA
6. If a transaction holding heavily used locks is being suspended by an OS then every other transaction needs the lock is queued, such queues are called as (a) Deadlocks (b) Latches (c) Atomicity (d) Convoys
7. A variant of 2PL called which can also prevent deadlock (a) Un-conservative 2PL (b) Conservative 2PL (c) Strict 2PL (d) Strict lock
8. Which type of technique comes under a concurrency control without locking (a) Multiversion concurrency control (b) Timestamp based concurrency control (c) Time out control (d) Optimistic concurrency control
9. The main purpose of ARIES recovery algorithm is (a) Repeating history during redo (b) Write ahead logging (c) Logging changes during undo (d) Write ahead logging, Repeating history during redo & Logging changes during undo
10. Which log record contains just the before image filed (a) redo only update log record (b) undo only update log record (c) update log record (d) all log records
11. The most recent checkpoint was taken at the of the execution with an empty transaction table and dirty page table (a) Centre (b) Middle (c) Beginning (d) End
12. The unit of information read from or written to disk is called (a) Page (b) Sector (c) File (d) Record
13. An index containing no duplicates and the search key contains some candidate key is called (a) Clustered Index (b) Unique Index (c) Unclustered Index (d) Sparse Index
14. The lowest level of the tree is called (a) Leaf node (b) Root node (c) Non leaf node (d) Siblings of non leaf node

15. The cost (in terms of execution time) of search with equality selection in heap files is Where B = The number of data pages when records are packed on top pages with no wasted space R = The number of records per page D = The average time to read or write a disk page C = The average time to process a record (a) $2D+C$ (b) $B(D+RC)$ (c) $0.5B(D+RC)$ (d) $C+D$

16. If the search key is composite, the query in which each field in the search key is bound to a constant is called (a) inequality query (b) equality query (c) range query (d) logical query

17. Primary storage consists of (a) optical disk (b) tapes (c) Magnetic disk (d) cache and main memory

18. Which layer in DBMS architecture hides the details of the underlying hardware (and possibly the OS) and allows higher levels of software to think of the data as a collection of pages (a) Buffer manager (b) Concurrency control (c) Recovery manager (d) Disk space manager

19. The measure of the capacity of a tree node in B+ trees is (a) Outdegree of a node (b) Order of the tree (c) Indegree of a node (d) Height of the tree

20. Which scheme uses a directory to support Inserts & Deletes efficiently with no overflow pages (a) Extendable Hashing (b) Static Hashing (c) Linear Hashing (d) Indexing

ANS:- C,D,A,D,D,D,B,C,D,B,C,A,B,A,C,B,D,D,B,A,