

1. Which component of the database is responsible for handling concurrency control schemes (a) Transaction management (b) Serializability (c) Concurrency Control Management (d) Recovery Manager
2. The following schedules come under which type T1 T2 R(A) W(A) R(A) W(A) R(B) W(B) R(B) W(B) Commit Commit (a) Recoverable schedule (b) Unrecoverable schedule (c) Recoverable transaction (d) Serializable schedule
3. If transaction T1 sets an exclusive lock on object A, T2 sets an exclusive lock on B. Now T1 requests for exclusive lock on B and T2 requests exclusive lock on A then this situation can result in (a) Sharing (b) Transaction Management (c) Deadlock (d) Hiding
4. Writing a page to disk is an action in atomic writes (a) Read (b) Atomic (c) Redundancy (d) Duplicate
5. Who can take several steps to tune recovery subsystems (a) System Analyst (b) Client (c) DBA (d) Application programmer
6. A schedule 'S' is conflict serializable then precedence graph is (a) Cyclic (b) Rectangle (c) Squared (d) Acyclic
7. If we need to update the objects we must first upgrade to an (a) Shared lock (b) Exceptional lock (c) Request lock (d) Exclusive lock
8. SIX lock stands for (a) Shared Intensive Exclusive (b) Sublock (c) Shared Exclusive lock (d) Writelock
9. The phases in ARIES are (a) Analysis, undo, redo (b) Analysis, undo, redo (c) Analysis, undo, redo (d) Analysis, redo, undo
10. LSN of the first log record that caused the page to become dirty will be maintained under the field in dirty page table (a) recLSN (b) undo next LSN (c) last LSN (d) prev LSN
11. is used to denote unsaved transaction as (a) Crashtable (b) Recoverytable (c) Dirtytable (d) Datatable
12. Which is the most important external storage device (a) Disk (b) Flash Memory (c) Cache (d) Main Memory
13. An index that uses alternatives of data entry is $\langle k, rid \rangle$, $\langle k, ridlist \rangle$ pair where rid is record id of a data record with search key value K and ridlist is a list of record id's of a record on key field K is indexing (a) Clustered (b) Dense (c) Sparse (d) Unclustered

14. Which index data structure is used to organize data entries in sorted order by search key value (a) Tree based indexing (b) Clustered index (c) Hash based indexing (d) Unclustered Index

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) $C + D$ (b) $0.5B(D + RC)$ (c) $2D + C$ (d) $B(D + RC)$

16. An index that contains only indexable attributes in the query is called (a) admissible index (b) unclustered index (c) unique index (d) clustered index

17. Which level improves overall system performance at the lowest cost, but with reliability problem (a) Raid level 1 (b) Raid level 3 (c) Raid level 2 (d) Raid level 0

18. A database grows and shrinks as records are (a) Deleted (b) Inserted & deleted over time (c) Inserted (d) Inserted & updated over time

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

20. Which function is an important component of the hashing approach (a) Character function (b) Hash function (c) Mapping function (d) Aggregate function

ANS: CDCBCDDABACAAABADBAB