

1. A transaction that may not always complete its execution successfully is called (a) Aborted (b) Fail (c) Terminated (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) System Throughput (c) Process execution time (d) Response time
3. By using protocol serial interleaving is not allowed (a) Peer to Peer (b) HTTP (c) UDP (d) Strict 2PL
4. A transaction retrieves a collection of objects twice and sees different results even though it does not modify any of these tuples itself called (a) Hiding problem (b) Phantom problem (c) Chaining problem (d) Locking problem
5. Who can take several steps to tune recovery subsystems (a) DBA (b) Application programmer (c) System Analyst (d) Client
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) Atomicity (c) Convoys (d) Latches
7. A variant of 2PL called which can also prevent deadlock (a) Conservative 2PL (b) Strict lock (c) Strict 2PL (d) Un-conservative 2PL
8. The following schedule comes under which type T1 T2 R(A) Commit W(A) Commit (a) View equivalent (b) Conflict equivalent (c) View Serializable (d) Conflict Serializable
9. Any change to a database object is first recorded in the log; the record in the log must be written to stable storage before the change to the database object is written to disk is called (a) Logging (b) Locking (c) Read ahead logging (d) Write ahead logging
10. Which log record contains just the before image file (a) all log records (b) redo only update log record (c) update log record (d) undo only update log record
11. The most recent checkpoint was taken at the of the execution with an empty transaction table and dirty page table (a) Centre (b) Beginning (c) End (d) Middle
12. Which is the most important external storage device (a) Main Memory (b) Disk (c) Flash Memory (d) Cache
13. An index on a set of fields that includes the primary key is called (a) Secondary index (b) Primary index (c) Unclustered index (d) Clustered index
14. Which function is applied to determine the Bucket to which a record belongs (a) Mapping function (b) Group function (c) Hash function (d) Record id

15. The cost (in terms of execution time) of search with range selection in heap file is
Where B = The number of data pages when records are packed on top pages with no waste
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) $B(D + RC)$ (d)
 $2D + C$

16. If the search key is composite, the query in which each field in the search key is bounded
on a constant is called (a) logical query (b) inequality query (c) equality query (d) r
ange query

17. If data is stored on magnetic disk in units called (a) tracks (b) cylinder (c) platter
s (d) disk blocks

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) Concurrency control (b) Disk space manager (c) Buffer manager (d) Re
covery manager

19. In B+ Tree, the number of pointers to children with m index entries of non-leaf node are
(a) $m - 1$ (b) $2m$ (c) $m + 1$ (d) m

20. Which indexing technique cannot support range searches (a) Unclustered indexing (b)
Tree based indexing (c) Clustered indexing (d) Hash based indexing

ANS: A D D B A C A D D D B B C C C D B C D