DBMS 5th Unit MCQ's

1) Commit and rollback are related to .....

A. data integrity

B. data consistency

C. data sharing

D. data security

2) The transaction wants to edit the data item is called as .....

A. Exclusive Mode

B. Shared Mode

C. Inclusive Mode

D. Unshared Mode

3) For committing a transaction, the DBMS might discard all the records.

A. after image

B. before image

C. log

D. redo log

4) A sophisticated locking mechanism known as 2-phase locking which includes Growing phase and .

A. Shrinking Phase

B. Release phase

C. Commit phase

D. Acquire Phase

5) A Transaction ends

A. only when it is Committed.

B. only when it is Rolled-back

C. when it is Committed or Rolled-back

D. only when it is initialized

6) In ....., each transactions there is a first phase during which new lock are acquired.

A. Shrinking Phase

B. Release phase

C. Commit phase

D. Growing Phase

7) A transaction processing system is also called as .....

A. processing monitor

B. transaction monitor

C. TP monitor

D. monitor

8) The transactions are always ..... if it always locks a data item in shared mode before reading it.

A. well formed

B. well distributed

C. well locked

D. well shared

9) ..... servers which is widely used in relational database systems.

A. Data servers

B. Transaction servers

C. Query servers

D. Client servers

10) If a distributed transactions are well-formed and 2-phasedlocked, then ……..…..…… is the correct locking mechanism in distributed transaction as well as in centralized databases.

A. two phase locking

B. three phase locking

C. transaction locking

D. well-formed locking

11) ..... property will check whether all the operation of a transaction completed or none.

A. Atomicity

B. Consistency

C. Isolation

D. Durability

12) The total ordering of operations across groups ensures ……of transactions.

A. serializability

B. synchronizability

C. atomicity

D. durability

13) In which state, the transaction will wait for the final statement has been executed?

A. Active

B. Failed

C. Aborted

D. partially committed

14) The ORDER concurrency control technique is based on the property.

A. ordering mechanism

B. inherent ordering

C. total ordering

D. partial ordering

15) Transactions per rollback segment is derived from .....

A. Db_Block_Buffers

B. Processes

C. shared_Pool_size

D. buffers

16) The .....is responsible for ensuring correct execution in the presence of failures.

A. Database Manager

B. Transaction Manager

C. Recovery Manager

D. Executive Manager

17) A distributed transaction can be ..... if queries are issued at one or more nodes.

A. fully read-only

B. partially read-only

C. fully read-write

D. partially read-write

18) The distributed transaction can be completely read-only and the transaction is started with a ..... READ ONLY statement.

A. DISTRIBUTED_TRANSACTIONS

B. TRANSACTION

C. SET TRANSACTION

D. READ TRANSACTION

19) The initialization parameter ..... controls the number of possible distributed transactions in which a given instance can concurrently participate, both as a client and a server.

A. DISTRIBUTED_TRANSACTIONS

B. TRANSACTION

C. SET TRANSACTION

D. CONTROL TRANSACTION

20) A database administrator can manually force the COMMIT or ROLLBACK of a local ..... distributed transaction.

A. in-force

B. in-doubt

C. in-local

D. in-manual

21) Computer system of a parallel computer is capable of

A. Decentralized computing
B. Parallel computing
C. Centralized computing
D. Decentralized computing

22) Writing parallel programs is referred to as

A. Parallel computation
B. Parallel processes
C. Parallel development
D. Parallel programming

23) Simplifies application's of three-tier architecture is _____.

A. Maintenance
B. Initiation
C.Implementation
D. Deployment

24) Dynamic networks of networks, is a dynamic connection that grows is called

A. Multithreading
B. Cyber cycle
C. Internet of things
D. Cyber-physical system

25) In which application system Distributed systems can run well?

A. HPC
D. HTC
C. HRC
D. Both A and B

26) In which systems desire HPC and HTC.

A. Adaptivity
B. Transparency
C. Dependency
D. Secretive

27) No special machines manage the network of architecture in which resources are known as

A. Peer-to-Peer
B. Space based
C. Tightly coupled
D. Loosely coupled

28) Significant characteristics of Distributed systems have of

A. 5 types
B. 2 types
C. 3 types
D. 4 types

29) Built of Peer machines are over

A. Many Server machines
B. 1 Server machine
C. 1 Client machine
D. Many Client machines

30) Data access and storage are elements of Job throughput, of _____.

A. Flexibility
B. Adaptation

C. Efficiency
D. Dependability

31) In Distributed database, _____ are the transactions for which a <ready T> log is found in the log file, but neither a <commit T> log nor an <abort T> log is found.

a) In-doubt transactions

b) Serialized transactions

c) Cascadeless transactions

d) Distributed transactions

32) A semijoin is which of the following?

A) Only the joining attributes are sent from one site to another and then all of the rows are returned.

B) All of the attributes are sent from one site to another and then only the required rows are returned.

C) Only the joining attributes are sent from one site to another and then only the required rows are returned.

D) All of the attributes are sent from one site to another and then only the required rows are returned.

33) Which of the following is a disadvantage of replication?

A) Reduced network traffic

B) If the database fails at one site, a copy can be located at another site.

C) Each site must have the same storage capacity.

D) Each transaction may proceed without coordination across the network.

34) A distributed database can use which of the following strategies?

A) Totally centralized at one location and accessed by many sites

B) Partially or totally replicated across sites

C) Partitioned into segments at different sites

D) All of the above

35) Which of the following is not one of the stages in the evolution of distributed DBMS?

A) Unit of work

B) Remote unit of work

C) Distributed unit of Work

D) Distributed request

36) A distributed transaction can be ..... if queries are issued at one or more nodes.

A) fully read-only

B) partially read-only

C) fully read-write

D) partially read-write

37) Depending on the situation each node in the Distributed Database system can act as, _____ .

A) A client

B) A server

C) Both A & B

D) None of the above

38) Which transaction contains statements that access more than one node?

A) A Remote Transaction

B) A Distributed transaction

C) Both A & B

D) None of the above

39) What is the mechanism which guarantees that all database servers participating in a distributed transaction either all commit or all roll back the statements in the transaction?

A) Commit

B) Commit transaction

C) Two-phase commit

D) Three-phase commit

40) Stored procedures have which of the following advantages?

A) It takes a longer time to write them as compared to writing Visual Basic.

B) Network traffic increases

C) Data integrity improves as multiple applications access the same stored procedure.

D) Result in thicker client and thinner database server.

41) If the transaction is rolled back, all the database changes made inside the transaction are ……
A. made permanent
B. made temporary

C. copied to the log
D. Undone

42) Which of the following is not a property of transactions?
A. Atomicity
B. Concurrency
C. Isolation
D. Durability

43) A …… ensures that transactions are performed as expected.
A. transaction processing monitor
B. transaction procedure monitor
C. isolation monitor
D. transaction log

44) A transaction that completes its execution successfully is said to be …….
A. committed
B. rolled back
C. partially committed
D. Aborted

45) …….. means that a transaction must execute exactly once completely or not at all.
A. durability
B. consistency
C. atomicity
D. Isolation

46) Assume transaction A holds a shared lock R. If transaction B also requests for a shared lock on R.
A. It will result in a deadlock situation
B. It will immediately be rejected

C. It will immediately be granted

D. It will be granted as soon as it is released by A

47) ……. means that when it ends, a transaction must leave the database in a consistent state.
A. Data isolation
B. Data duration
C. Data consistency
D. Data non-reputability

48) The number of transactions executed in a given amount of time is called ……
A. utilization
B. execution rate
C. throughput
D. atomicity

49) Isolation means ……
A. transaction must not interfere with each other
B. transaction must interfere with each other
C. transaction must be in a consistent state
D. transaction must be executed immediately

50) Which of the following ensures the atomicity of the transaction?
A. Transaction management component of DBMS
B. Application Programmer
C. The concurrency control component of DBMS
D. Recovery management component of DBMS

51) ……. means that a transaction must make its changes permanent to the database ends.
A. isolation
B. locking
C. durability
D. consistency

52) Throughput means
A. number of transactions that are committed in one hour
B. number of operations in a transaction
C. number of transaction that can be aborted in a given amount of time
D. number of transaction that can be executed in a given amount of time

53) …….. deals with individual transactions.
A. isolate transactions
B. transaction recovery
C. system recovery
D. media recovery

54) The part of a database management system which ensures that the data remains in a consistent state is
A. authorization and integrity manager
B. buffer manager
C. transaction manager
D. file manager

55) …… protocol is used to perform multiple transactions that execute on a different database.
A. commit
B. two-phase lock
C. two-phase commit
D. locking

56) A transaction can do read and write operation on a data item when it acquires ……
A. read mode
B. exclusive mode
C. shared mode
D. write mode

57) In ……. one transaction overwrites the changes of another transaction.
A. uncommitted read problem
B. lost update problem
C. update lost problem
D. dirty read problem

58) Isolation of the transactions is ensured by
A. Transaction management
B. Application programmer
C. Concurrency control
D. Recovery management

59) In a dirty read problem …….
A. one transaction reads an uncommitted value of another transaction
B. one transaction reads the committed value for another transaction

C. one transaction reads another transaction
D. one transaction commits another transaction.

60) A transaction can do only read operation and not write operation on a data item when it acquires ……. lock.
A. read mode
B. exclusive mode
C. shared mode
D. write mode

61) In the ……., one transaction inserts a row in the table while the other transaction is halfway through its browsing of the table.
A. transaction read a problem

B. one way read a problem
C. serial read problem
D. phantom read problem

62) 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 data

63) ……. helps solve the concurrency problem.
A. locking
B. transaction monitor
C. transaction serializability
D. two-phase commit

64) If a transaction acquires a shared lock, then it can perform ……. operation.
A. read
B. write
C. read and write
D. update

65) If a transaction obtains a shared lock on a row, it means that the transaction wants to ….. that row.
A. write
B. insert
C. execute
D. read

66) The node where the distributed transaction originates is called the …….
A. local coordinator

B. starting coordinator

C. global coordinator

D. originating node

67) If a transaction obtains an exclusive lock on a row, it means that the transaction wants to ……. that row.
A. select
B. update
C. view
D. read

68) If a transaction acquires an exclusive lock, then it can perform ……. operation.
A. read
B. write
C. read and write
D. update

69) …….. is a specific concurrency problem wherein two transactions depend on each other for something.
A. phantom read problem
B. transaction read a problem
C. deadlock
D. locking

70) If a database server is referenced in a distributed transaction, the value of its commit point strength determines which role it plays in the ……
A. two-phase commit
B. two-phase locking
C. transaction locking
D. checkpoints

71) Transaction ……. ensures that the transaction is being executed successfully.
A. concurrency
B. consistency
C. serializability
D. non-serialiasability

72) The situation in which a transaction holds a data item and waits for the release of data item held by some other transaction, which in turn waits for another transaction, is called …….
A. serializable schedule
B. process waiting
C. concurrency
D. deadlock

73) …… protocol grantees that a set of transactions becomes serializable.
A. two-phase locking
B. two-phase commit
C. transaction locking
D. checkpoints

74) The global coordinator forgets about the transaction phase is called ……
A. Prepare phase
B. Commit phase
C. Forget phase
D. Global phase

75) In two-phase commit, ……. coordinates the synchronization of the commit or rollback operations.
A. database manager
B. central coordinator
C. participants
D. concurrency control manager

76) In two-phase locking protocol, a transaction obtains locks in ……..phase.
A. shrinking phase
B. growing phase
C. running phase
D. initial phase

77) A transaction processing system is also called as ……..
A. processing monitor
B. transaction monitor
C. TP monitor
D. monitor

78) After the nodes are prepared, the distributed transaction is said to be ……
A. in-doubt

B. in-prepared
C. prepared transaction
D. in-node

79) In ……., we have many mini transactions within the main transaction.
A. transaction control
B. chained transaction
C. nested transaction
D. calling transaction

80) In a two-phase locking protocol, a transaction release locks in …… phase.
A. shrinking phase
B. growing phase
C. running phase
D. initial phase

81) A mechanism which ensures that simultaneous execution of more than one transaction does not lead to any database inconsistencies is called …… mechanism.
A. transaction control

B. transaction management

C. concurrency parallelism

D. concurrency control

82) The transaction wants only to read the data item of the mode is called as …….
A. Exclusive Mode
B. Shared Mode
C. Inclusive Mode
D. Unshared Mode

83) Any execution of a set of transactions is called as its ……
A. non-serial schedule
B. serial schedule
C. schedule
D. interleaved schedule

84) …… is a program or set of program that interacts with the database at some point in its execution.
A. A database system
B. A database application

C. Both
D. none

85) ……. component of a database is responsible for ensuring atomicity and durability.
A. recovery management
B. concurrency control
C. storage management
D. query evaluation engine

86) The activity of ensuring atomicity in the presence of Transaction aborts is called …….
A. transaction control

B. transaction management

C. transaction recovery

D. concurrency control

87) A ……..is a set of rules that state when a transaction may lock or unlock each of the data items in the database
A. concurrency control
B. transaction control
C. validation control
D. locking protocol

88) ……. is a collection of programs performing all necessary action associated with a database.
A. Database associated
B. Database administrator
C. Database application
D. Database management system

89) Which protocol permits the release of exclusive locks only at the end of the transaction?
A. Graph-based protocol
B. The strict two-phase locking protocol
C. Two-phase locking protocol
D. Rigorous Two-phase locking protocol

90) The activity of providing Durability of the transaction is called …..
A. database control
B. transaction management
C. transaction recovery
D. database recovery

91) Which protocol allows a transaction to lock a new data item only if that transaction has not yet unlocked data item?

A. Graph-based protocol.

B. The strict two-phase locking protocol

C. Two-phase locking protocol

D. Timestamp ordering scheme

92) ……. is a collection of application programs that interact with the database along with DBMS.
A. A database system
B. A database application
C. Database administration
D. Data system

93) …….. ensures that once the transaction completes successfully, the results of the operations become permanent.
A. serializability
B. synchronizability
C. atomicity
D. durability

94) A ……. contains information for undoing or redoing all the actions performed by the transactions.
A. save point
B. log
C. node
D. commit_point

95) A …… is a unit of program execution that accesses and possibly updates various data items.
A. DBMS
B. monitor
C. transaction
D. transistor

96) A transaction is an action used to perform some manipulation on data stored in the ……..
A. Memory
B. Record
C. Database
D. All of these

97) A transaction is terminated if it has ……..
A. aborted
B. committed
C. running state
D. aborted or committed

98) The two possible communication errors are, Lost messages and …….
A. Network Partitions
B. Lost acknowledgment
C. Timeout
D. log error

99) The only way to undo the effects of a committed transaction is to execute a …….
A. committed transaction
B. compensating transaction
C. supplementary transaction
D. update query

100) In ……., one or more users/programs attempt to access the same data at the same time.
A. concurrency
B. transaction control
C. locking
D. two-phase locking

ANSWERS:

1) B. data consistency

2) A. Exclusive Mode

3) B. before image

4) A. Shrinking Phase

5) C. when it is Committed or Rolled-back

6) D. Growing Phase

7) C. TP monitor

8) A. well formed

9) B. Transaction servers

10) A. two phase locking

11) A. Atomicity

12) A. serializability

13) D. partially committed

14) C. total ordering

15) B. Processes

16) A. Database Manager

17) B. partially read-only

18) C. SET TRANSACTION

19) A. DISTRIBUTED_TRANSACTIONS

20) B. in-doubt

21) A.Decentralized computing

22) D. Parallel programming

23) D. Deployment

24) C. Internet of things

25) D. Both A and B

26) B. Transparency

27) A. Peer-to-Peer

28) C. 3 types

29) D. Many Client machines

30)C. Efficiency

31)A. In-doubt transactions

32)C- Only the joining attributes are sent from one site to another and then only the required rows are returned.

33)C- Each site must have the same storage capacity.

34)D- All of the above

35)A- Unit of work

36)B- partially read-only

37)C-Both A & B

38)B- A Distributed transaction

39)C- Two-phase commit

40)C- Data integrity improves as multiple applications access the same stored procedure.

41) D. undone
42) B. Concurrency
43) A. transaction processing monitor

44) A. committed
45) C. atomicity
46) C. It will immediately be granted
47) C. Data consistency
48) c. throughput
49) A. transaction must not interfere with each other
50) A. Transaction management component of DBMS
51) C. durability
52) D. number of transaction that can be executed in a given amount of time
53) B. transaction recovery
54) C. transaction manager
55) C. two-phase commit
56) B. exclusive mode
57) B. lost update problem
58) C. Concurrency control
59) A. one transaction reads an uncommitted value of another transaction
60) C. shared mode

61) D. phantom read problem
62) C. confirming an action or triggering a response
63) A. locking
64) A. read
65) D. read
66) C. global coordinator
67) B. update
68) C. read and write
69) C. deadlock
70) A. two-phase commit
71) C. serializability
72) D. deadlock
73) A. two-phase locking
74) C. Forget phase
75) B. central coordinator
76) B. growing phase
77) C. TP monitor
78) A. in-doubt
79) B. chained transaction
80) A. shrinking phase

81) D. concurrency control
82) B. Shared Mode
83) C. schedule
84) B. A database application
85) A. recovery management
86) C. transaction recovery
87) D. locking protocol
88) D. Database management system
89) B. Strict two-phase locking protocol
90) D. database recovery
91) C. Two-phase locking protocol
92) A. A database system
93) D. durability

94) B. log
95) C. transaction
96) C. Database
97) C. running state
98) A. Network Partitions
99) B. compensating transaction
100) A. concurrency