



MCA II YEAR A(2016-2019)
CORE: RELATIONAL DATABASE MANAGEMENT SYSTEM-354C
Semester : III
Multiple Choice Questions

- 1) _____ deals with soft errors, such as power failures.
 - a) system recovery.
 - b) media recovery.
 - c) database recovery.
 - d) failure recovery.**

- 2) _____ imposes restrictions on the order in which items are accessed.
 - a) graph based protocol.**
 - b) strict two phase locking protocol.
 - c) two phase locking protocol.
 - d) timestamp ordering scheme.

- 3) _____ are based on a sorted ordering of the values.
 - a) ordered indices.**
 - b) hash indices.
 - c) hashing.
 - d) indexing.

- 4) _____ file organizations avoids accessing an index structure.
 - a) indexing.
 - b) hashing.**
 - c) indexing and hashing.
 - d) indexing or hashing.

- 5) _____ helps solve concurrency problem.
 - a) locking.**
 - b) transaction monitor.
 - c) transaction serializability.
 - d) two phase commit.

- 6) _____ is a statement that is executed automatically by the system.
 - a) trigger.**
 - b) assertion.
 - c) durability.
 - d) integrity constraint.

- 7) _____ organizes the search keys with their associated pointers.
- a) trees.
 - b) nodes.
 - c) buckets.
 - d) hash index.**
- 8) _____ protocol guarantees that a set of transactions becomes serialisable.
- a) two phase locking.**
 - b) two phase commit.
 - c) transaction locking.
 - d) checkpoints.
- 9) _____ allows hash function to be modified dynamically to accommodate growth or shrinkage of database.
- a) static hashing.
 - b) dynamic hashing.**
 - c) static or dynamic hashing.
 - d) static and dynamic hashing.
- 10) _____ are constraints on the set of legal relations.
- a) domain dependency.
 - b) functional dependency.**
 - c) canonical cover.
 - d) decomposition.
- 11) _____ cursor are declared by ORACLE for each UPDATE, DELETE and INSERT SQL commands
- a) Explicit
 - b) Implicit**
 - c) Internal
 - d) External
- 12) _____ cursors are declared and used by the user to process multiple row, returned by SELECT statement.
- a) Implicit
 - b) Explicit**
 - c) External
 - d) Internal
- 13) _____ indices should always be dense.
- a) primary indices.
 - b) secondary indices.**
 - c) sparse indices.
 - d) tree indices.

- 14) _____ is a condition specified on a database schema and restricts the data that can be stored in an instance of the database.
- a) key Constraint.
 - b) check Constraint.**
 - c) foreign Key Constraint.
 - d) integrity Constraint.
- 15) _____ is a predicate expressing a condition that the database should always satisfy.
- a) trigger.
 - b) referential integrity.
 - c) relationship.
 - d) assertion.**
- 16) _____ is a specific concurrency problem wherein two transactions depend on each other for something.
- a) phantom read problem.
 - b) transaction read problem.
 - c) deadlock.**
 - d) locking.
- 17) _____ is used to define code that is executed / fired when certain actions or event occur.
- a) Cursor
 - b) Keyword
 - c) Trigger**
 - d) Package
- 18) _____ means that a transaction must execute exactly once completely or not at all.
- a) durability.
 - b) consistency.
 - c) atomicity.**
 - d) isolation.
- 19) _____ means that a transaction must make its changes permanent to the database when it ends.
- a) isolation.
 - b) locking.
 - c) durability.**
 - d) consistency.
- 20) _____ provide a way for your program to select multiple rows of data from the database and then process each row individually.
- a) PL/SQL Cursors**
 - b) PL/SQL Trigger
 - c) PL/SQL Select
 - d) PL/SQL Process

- 21) _____ deals with individual transactions.
- a) isolate transactions.
 - b) transaction recovery.**
 - c) system recovery.
 - d) media recovery.
- 22) _____ introduced the relational databases.
- a) Atul Kahate.
 - b) James Gosling.
 - c) EF Codd.**
 - d) Dennis Ritchie.
- 23) _____ is a form of dynamic hashing.
- a) extendable hashing.**
 - b) compressed hashing.
 - c) extend hashing.
 - d) static hashing.
- 24) _____ is a query that has another query embedded within it.
- a) sub query.
 - b) structured query.
 - c) nested query.**
 - d) sequence query.
- 25) _____ is critical in formulating database design.
- a) row column order.
 - b) number of tables.
 - c) functional dependency.**
 - d) normalizing.
- 26) _____ is used to determine the value assigned to a bucket.
- a) threshold.
 - b) hash function.**
 - c) indexes.
 - d) ordered list.
- 27) _____ means breaking one table into multiple tables.
- a) transitive decomposition.
 - b) decomposition.**
 - c) mutating table.
 - d) non-lossy decomposition.

- 28) _____ is an example of multilevel index.
- a) **B+ tree**
 - b) sparse tree.
 - c) dense tree.
 - d) primary indices.
- 29) _____ 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.
- 30) _____ protocol is used to perform multiple transactions that execute on different database.
- a) commit.
 - b) two phase lock.
 - c) **two phase commit.**
 - d) locking.
- 31) _____ component of a database is responsible for ensuring atomicity and durability properties of transactions.
- a) **recovery management.**
 - b) concurrency control.
 - c) storage management.
 - d) query evaluation engine.
- 32) _____ is a technique for modeling real life systems in the form of software constructs.
- a) **Entity- relationship modeling.**
 - b) data modeling.
 - c) database modeling.
 - d) database design.
- 33) _____ is the process of successive reduction of a given set of relations to better form.
- a) database design.
 - b) database modeling.
 - c) **normalization.**
 - d) database reduction.
- 34) _____ ensures that once transaction completes successfully, the results of the operations become permanent.
- a) serializability.
 - b) synchronizability.
 - c) atomicity.
 - d) **durability.**

- 35) _____ a cursor enables you to define the cursor and assign a name to it.
- a) **Declaring**
 - b) Stating
 - c) Extracting
 - d) Importing
- 36) _____ contain a pointer that keeps track of current row being accessed, which enables your program to process the rows at a time.
- a) Tracker
 - b) **Cursor**
 - c) Accesser
 - d) Trigger
- 37) A _____ is a list of transactions that were in progress when the checkpoint was being taken.
- a) log record.
 - b) system record.
 - c) transaction record.
 - d) **checkpoint record.**
- 38) A _____ ensures that transactions are performed as expected.
- a) **transaction processing monitor.**
 - b) transaction procedure monitor.
 - c) isolation monitor.
 - d) transaction log.
- 39) A _____ is a set of column that identifies every row in a table.
- a) composite key.
 - b) candidate key.
 - c) foreign key.
 - d) **super key.**
- 40) A _____ is a collection of logical information.
- a) record.
 - b) field.
 - c) **file.**
 - d) data.
- 41) A _____ is a set of operations that must be performed completely or not at all.
- a) query.
 - b) command.
 - c) data sharing.
 - d) **transaction.**

- 42) A _____ is used internally to record database operations.
- a) TP monitor.
 - b) undo segments.
 - c) redo log.
 - d) system log.**
- 43) A _____ specifies the actions needed to remove the drawbacks in the current design of database.
- a) Normal form.**
 - b) 1 NF.
 - c) 2 NF.
 - d) 3 NF.
- 44) A _____ may contain one or more records.
- a) file.**
 - b) database.
 - c) transaction.
 - d) fields.
- 45) A _____ is a unit of program execution that accesses and possibly updates various data items.
- a) DBMS.
 - b) monitor.
 - c) transaction.**
 - d) transistor.
- 46) 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.**
- 47) A _____ is a database object that groups logically related PL/SQL types, objects and subprograms
- a) Module
 - b) Package**
 - c) Body
 - d) Name
- 48) A field that can identify a record uniquely is called as _____ of the record.
- a) foreign key.
 - b) super key.
 - c) primary key.**
 - d) candidate key.

- 49) A functional dependency is a relationship between or among _____.
- a) tables.
 - b) rows.
 - c) relations.
 - d) attributes.**
- 50) A relation in _____ is free of all modification anomalies.
- a) first normal form.
 - b) second normal form.
 - c) third normal form.
 - d) domain key normal form.**
- 51) A relation is _____ if every field contains only atomic values that is, no lists or sets.
- a) 1 NF.**
 - b) 2 NF.
 - c) 3 NF.
 - d) BCNF.
- 52) A relation is in this form if it is in BCNF and has no multivalued dependencies.
- a) second normal form.
 - b) third normal form.
 - c) fourth normal form.**
 - d) domain key normal form.
- 53) A Stored Procedure is a
- a) Sequence of SQL or PL/SQL statements to perform specific function
 - b) Stored in compiled form in the database
 - c) Can be called from all client environments
 - d) All of the above**
- 54) A table is in the _____ if only candidate keys are the determinants.
- a) functional dependency.
 - b) transitive dependency.
 - c) 4 NF.
 - d) Boyce codd normal form.**
- 55) 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.

- 56) A transaction can do read and write operation on a data item when it acquires _____ lock.
- a) read mode.
 - b) exclusive mode.**
 - c) shared mode.
 - d) write mode.
- 57) A transaction that completes its execution successfully is said to be _____.
- a) committed.**
 - b) rolled back.
 - c) partially committed.
 - d) Aborted.
- 58) All or none operations are also called as _____.
- a) performance.
 - b) serializability.
 - c) durability.
 - d) atomicity.**
- 59) An entity set that does not have sufficient attributes to form a primary key is a
- a) strong entity set
 - b) weak entity set**
 - c) simple entity set
 - d) primary entity set
- 60) Any execution of a set of transactions is called as its_____.
- a) non-serial schedule.
 - b) serial schedule.
 - c) schedule.**
 - d) interleaved schedule.
- 61) Attributes of a _____ declaration are allowed to hold null values provided that no null constraint is not set.
- a) unique.**
 - b) distinct.
 - c) primary key.
 - d) foreign key.
- 62) Column B is said to be _____ on column A if, given A we can precisely determine B.
- a) transitively dependent.
 - b) dependent.
 - c) non functionally dependent.
 - d) functionally dependent.**

- 63) Commit and rollback are related to _____.
- a) data integrity.
 - b) data consistency.**
 - c) data sharing.
 - d) data security.
- 64) Composite key is made up of _____.
- a) one column.
 - b) one super key.
 - c) one foreign key.
 - d) two or more columns.**
- 65) Deletion of a search key value is similar to deletion of a record from a file in _____ indices.
- a) sparse index.**
 - b) tree.
 - c) dense index.
 - d) forest.
- 66) Different values for the same data item is referred to as _____.
- a) data consistency.
 - b) data inconsistency.**
 - c) data integrity.
 - d) data duplication.
- 67) Flat, chained, nested are the types of _____.
- a) locks.
 - b) system models.
 - c) database models.
 - d) transaction models.**
- 68) If a node is locked in an intention mode, explicit locking is done at _____ of the tree.
- a) root.
 - b) lower level.**
 - c) left subtree.
 - d) right subtree.
- 69) If a transaction acquires a shared lock, then it can perform _____ operation.
- a) read.**
 - b) write.
 - c) read and write.
 - d) update.

- 70) If a 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.**
- 71) 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.**
- 72) 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.
- 73) If column A of a table can determine the value of another column
- a) **B is functionally dependent on A.**
 - b) A is functionally dependent on B.
 - c) A is transitively dependent on B.
 - d) B is transitively dependent on A.
- 74) If column C functionally depends on column B, and column B functionally depends on column A, then
- a) **column C transitively depends on column A.**
 - b) column A transitively depends on column C.
 - c) column C functionally depends on column A.
 - d) column A functionally depends on column C.
- 75) If every non_key attribute is functionally dependent on the primary key, then the relation will be in _____.
- a) first normal form.
 - b) second normal form.
 - c) **third normal form.**
 - d) fourth normal form.
- 76) If SQL statements are known before the program executes, we call them _____.
- a) cursor.
 - b) **dynamic SQL.**
 - c) static transaction.
 - d) embedded SQL.

- 77) In _____ , we have many mini transactions within a main transaction.
- a) transaction control.
 - b) chained transaction.**
 - c) nested transaction.
 - d) calling transaction.
- 78) In _____ , an index record appears for every search key value in the file.
- a) sparse index.
 - b) tree.
 - c) dense index.**
 - d) forest.
- 79) 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.
- 80) In _____ file organization, the leaf nodes of the tree store records instead of storing pointers to records.
- a) sequential file organization.
 - b) random file organization.
 - c) indexed sequential file organization.
 - d) B+ tree file organization.**
- 81) In _____ , in the event of the failure of a sub transaction, the immediate higher level transaction can trap it and make an attempt to redo it using an alternative approach.
- a) nested transaction.**
 - b) flat transaction.
 - c) chained transaction.
 - d) transaction recovery.
- 82) In a tree protocol, the only lock instruction allowed is _____.
- a) lock.
 - b) unlock.
 - c) lock-X.**
 - d) shared lock.
- 83) In a two-phase locking protocol, a transaction obtains locks in _____ phase.
- a) shrinking phase.
 - b) growing phase.**
 - c) running phase.
 - d) initial phase.

- 84) In a two-phase locking protocol, a transaction release locks in _____ phase.
- a) **shrinking phase.**
 - b) growing phase.
 - c) running phase.
 - d) initial phase.
- 85) In sparse index an index record is created for _____.
- a) all the values.
 - b) **some of the values.**
 - c) values selected with criteria.
 - d) not created at all.
- 86) In the _____, one transaction inserts a row in the table while the other transaction is half way through its browsing of the table.
- a) transaction read problem.
 - b) one way read problem.
 - c) serial read problem.
 - d) **phantom read problem.**
- 87) In the relational model, relationships between relations or tables are created by using _____.
- a) composite keys.
 - b) determinants.
 - c) candidate keys.
 - d) **foreign keys.**
- 88) In two phase commit, _____ coordinates the synchronization of the commit/rollback operations.
- a) database manger.
 - b) **central coordinator.**
 - c) participants.
 - d) concurrency control manger.
- 89) Indices with two or more levels are called _____.
- a) multiple indices.
 - b) single indices.
 - c) hierarchical indices.
 - d) **multilevel indices.**
- 90) Isolation means _____.
- a) **transactions must not interfere with each other.**
 - b) transactions must interfere with each other.
 - c) transactions must be in consistent state.
 - d) transactions must be executed immediately.

- 91) Isolation property is also known as _____.
- a) performance.
 - b) serializability.**
 - c) durability.
 - d) atomicity.
- 92) Loss of main memory contents is the example for _____.
- a) media failure.
 - b) transaction failure.
 - c) system failure.**
 - d) failure recovery.
- 93) One solution to the multivalued dependency constraint problem is to _____.
- a) split the relation into two relations, each with a single theme.**
 - b) change the theme.
 - c) create a new theme.
 - d) add a composite key.
- 94) Overflow chaining can be handled by _____.
- a) indexing.
 - b) overflow buckets.
 - c) buffering.
 - d) closed hashing.**
- 95) Overflow of data in buckets can be handled using _____.
- a) overflow buckets.**
 - b) buffers.
 - c) file storage.
 - d) stack.
- 96) Rollback and commit affect _____.
- a) only DML statements.**
 - b) only DDL statements.
 - c) all statements.
 - d) only DCL statements.
- 97) Row is synonymous with the term _____.
- a) record.**
 - b) relation.
 - c) Column.
 - d) field.

- 98) The _____ specifies the legal values for a type.
- a) attribute constraints.
 - b) instance constraints.
 - c) type constraints.**
 - d) database constraints.
- 99) The _____ normal form is also called as project-join normal form.
- a) boyce codd normal form.
 - b) first normal form.
 - c) second normal form.
 - d) fifth normal form.**
- 100) The _____ specifies that every foreign key must contain a null or valid primary key value.
- a) primary key.
 - b) referential integrity.**
 - c) null.
 - d) database integrity.
- 101) The _____ can be used to ensure database integrity.
- a) entity integrity.
 - b) database constraints.**
 - c) referential integrity.
 - d) cardinality.
- 102) The _____ protocol releases all locks only at the end of the transactions
- a) Graph based protocol.
 - b) Strict two phase locking protocol.
 - c) Two phase locking protocol.
 - d) Rigorous Two phase locking protocol.**
- 103) The _____ feature of DBMS frees the users and programmers from the responsibility of knowing the physical details of data.
- a) logical view.
 - b) physical view.
 - c) data independency.**
 - d) data dependency.
- 104) The _____ knows the details of the data storage.
- a) decision support system analyst.
 - b) database administrator.**
 - c) database manger.
 - d) transaction manger.

- 105) The _____ normal form requires the table to be in the second normal form.
- a) first.
 - b) third.**
 - c) fourth.
 - d) fifth.
- 106) The _____ specifies that all non-key columns in table should depend on the primary key.
- a) foreign key.
 - b) 3 NF.
 - c) normalization.
 - d) 2 NF.**
- 107) The _____ property ensures that concurrently executing transactions do not interface with each other.
- a) performance.
 - b) serializability.**
 - c) durability.
 - d) atomicity.
- 108) The _____ protocol ensures that the system will never enter into a deadlock state.
- a) deadlock prevention.**
 - b) deadlock avoidance.
 - c) deadlock detection.
 - d) deadlock recovery.
- 109) The _____ refers to the way data is organized in and accessible from DBMS.
- a) database hierarchy.
 - b) data organization.
 - c) data sharing.
 - d) data model.**
- 110) The _____ of a database presents the view that the end users have.
- a) conceptual view.
 - b) external view.**
 - c) internal view.
 - d) non conceptual view.
- 111) The _____ defines a set of all possible values for a column or a relation.
- a) entity integrity.
 - b) multiplicity.
 - c) domain.**
 - d) cardinality.

- 112) The _____ is used for creating and destroying tables, indexes and other forms of structures.
- a) data manipulation language.
 - b) data control language.
 - c) transaction control language.
 - d) data definition language.**
- 113) The _____ lock does not permit to share the resource.
- a) share.
 - b) dead.
 - c) shared update.
 - d) exclusive.**
- 114) The _____ controls the access to various tables, indexes and other structures.
- a) data control language.**
 - b) locking.
 - c) two phase locking.
 - d) transaction control language.
- 115) The _____ is an indirect dependency relationship.
- a) functional dependency.
 - b) mutual dependency.
 - c) transitive dependency.**
 - d) non transitive dependency.
- 116) The _____ is related to the concept of multi-valued dependency.
- a) fourth normal form.**
 - b) fifth normal form.
 - c) Boyce codd normal form.
 - d) Third normal form.
- 117) The check points are sometimes also called as _____.
- a) crash-points.
 - b) sync-points.**
 - c) function-points.
 - d) meta-points.
- 118) The different classes of relations created by the technique for preventing modification anomalies are called _____.
- a) normal forms.**
 - b) referential integrity constraints.
 - c) functional dependencies.
 - d) transient dependencies.

- 119) The dirty read problem is also called _____.
- a) committed dependency problem.
 - b) dependency problem.
 - c) uncommitted dependency problem.**
 - d) rolledback dependency problem.
- 120) The number of nodes accessed in a lookup in a B-tree depends on _____.
- a) nodes.
 - b) location of search key.**
 - c) tree level.
 - d) indexes.
- 121) The number of pointers in a node is called _____ of the node.
- a) fan in
 - b) fanout.**
 - c) count.
 - d) cardinal number.
- 122) The number of transactions executed in a given amount of time is called _____.
- a) utilization.
 - b) execution rate.
 - c) throughput.**
 - d) atomicity.
- 123) 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.
- 124) The order of phases in a validation based protocol is _____, _____, _____ phase.
- a) read, validate, write.**
 - b) read, write, validate.
 - c) validate, read, write.
 - d) write, read, validate.
- 125) The primary key is selected from _____.
- a) composite keys.
 - b) determinants
 - c) candidate keys.**
 - d) foreign key.

- 126) The Primary query language of the MS SQL Server is _____.
- a) **T-SQL**
 - b) D-SQL
 - c) PL SQL
 - d) Embedded SQL
- 127) The process of finding a good strategy for processing a query is called _____.
- a) query updation.
 - b) query minimization.
 - c) **query optimization.**
 - d) query initialization.
- 128) The shadow copy scheme is used for ensuring _____ and _____.
- a) **atomicity, durability.**
 - b) serializability, atomicity.
 - c) durability, serializability.
 - d) concurrency, serializability.
- 129) The SQL query to retrieve current time in Oracle is
- a) select systime from dual;
 - b) select sysdate from dual;
 - c) **select to_char(sysdate);**
 - d) select to_char(systime);
- 130) The technique in which any transaction that inserts a tuple into a relation must insert information into every index maintained on the relation is called _____.
- a) shared locking technique.
 - b) intention locking technique.
 - c) shared intention locking technique.
 - d) **index locking technique.**
- 131) The technique wherein the log entries precede the database changes is called _____.
- a) read-ahead log.
 - b) **write-ahead log.**
 - c) write log.
 - d) read log.
- 132) The third normal form specifies that _____.
- a) all non-key columns should depend on the foreign key.
 - b) **all the non-key columns in the table should non-transitively depend on the entire primary key.**
 - c) all the non-key columns in the table should non-transitively depend on the entire foreign key.
 - d) all the non-key columns should depend on the entire primary key.

- 133) Thomas Write Rule includes _____.
- a) tree protocol.
 - b) shadow copy.
 - c) validation based.
 - d) timestamp ordering.**
- 134) To change column value in a table the _____ command can be used.
- a) create.
 - b) insert.
 - c) alter.
 - d) update.**
- 135) Transaction _____ ensures that the transactions are being executed successfully.
- a) concurrency.
 - b) consistency.
 - c) serialisability.**
 - d) non serialisability.
- 136) Two phase locking protocol guarantees that all possible interleaved schedules become _____.
- a) non-serial.
 - b) interleaved.
 - c) simple.
 - d) serialisable.**
- 137) Validation based protocol is called as _____.
- a) pessimistic concurrency control.
 - b) optimistic concurrency control.**
 - c) right concurrency control.
 - d) perfect concurrency control.
- 138) What is a trigger?
- a) a piece of logic written in PL/SQL .
 - b) executed at the arrival of a SQL*FORMS event.
 - c) logic written in PL/SQL and executed with SQL * FORMS event.**
 - d) executed as a program.
- 139) What process indicates the end of a transaction?
- a) only when it is committed.
 - b) only when it is rolledback.
 - c) when it is committed or rolledback.**
 - d) when it is committed and rolledback.

- 140) When the values in one or more attributes being used as a foreign key must exist in another set of one or more attributes in another table, we have created a(n) _____.
- a) transitive dependency.
 - b) insertion anomaly.
 - c) referential integrity constraint.**
 - d) normal form.
- 141) When we preserve information after decomposition, we call it as _____.
- a) lossy decomposition.
 - b) lossless decomposition.**
 - c) non-lossy decomposition.
 - d) non decomposition.
- 142) Which is the new feature introduced in SQL Server 2014?
- a) Online Data Processing (OLDP)
 - b) Online Transaction Processing (OLTP)**
 - c) Transaction Processing (TP)
 - d) Online Business Data Processing (OBDP)
- 143) Which normal form is considered adequate for relational database design?
- a) 2 NF.
 - b) 3 NF.**
 - c) 4 NF.
 - d) BCNF.
- 144) Which one of the following is an Open Source RDBMS?
- a) MySQL**
 - b) Microsoft SQL
 - c) Oracle
 - d) IBM/DB2
- 145) Which one of the following is not true for a view?
- a) View is derived from other tables.
 - b) View is a virtual table.
 - c) A view definition is permanently stored as part of the database.**
 - d) View never contains derived columns.
- 146) 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) Strict two phase locking protocol.
 - c) Two phase locking protocol.**
 - d) Timestamp ordering scheme.

- 147) Which protocol permits release of exclusive locks only at the end of transaction?
- a) Graph based protocol.
 - b) Strict two phase locking protocol.**
 - c) Two phase locking protocol.
 - d) Rigorous Two phase locking protocol.
- 148) Which syntax turns an existing constraint on?
- a) Alter table table_name enable constraint_name;.
 - b) Alter table table_name status = enable constraint constraint_name;.
 - c) Alter table table_name enable constraint constraint_name;.**
 - d) Alter table table_name status enable constraint constraint_name;.
- 149) Why is it better to use an integrity constraint to validate data in a table than to use a stored procedure?
- a) Because an integrity constraint is automatically checked while data is inserted into or updated in a table while a stored procedure has to be specifically invoked.**
 - b) Because the stored procedure occupies more space in the database than a integrity constraint definition.
 - c) Because a stored procedure creates more network traffic than a integrity constraint definition.
 - d) Because stored procedure occupies less memory space.
- 150) Writing the contents of the database buffer to the database permanently is called as _____.
- a) updating.
 - b) log writing.
 - c) force writing.**
 - d) copying.

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