

Program: BE Computer Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: CPC603 and Course Name: Distributed Databases

Time: 1 hour

Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	Which of the following is true concerning a global transaction?
Option A:	The required data are at one local site and the distributed DBMS routes requests as necessary.
Option B:	The required data are located in at least one nonlocal site and the distributed DBMS routes requests as necessary.
Option C:	The required data are at one local site and the distributed DBMS passes the request to only the local DBMS.
Option D:	The required data are located in at least one nonlocal site and the distributed DBMS passes the request to only the local DBMS.
Q2.	A homogenous distributed database is which of the following?
Option A:	The same DBMS is used at each location and data are not distributed across all nodes.
Option B:	The same DBMS is used at each location and data are distributed across all nodes.
Option C:	A different DBMS is used at each location and data are not distributed across all nodes.
Option D:	A different DBMS is used at each location and data are distributed across all nodes.
Q3.	Storing a separate copy of the database at multiple locations is which of the following?
Option A:	Data Replication
Option B:	Horizontal Partitioning
Option C:	Vertical Partitioning
Option D:	Horizontal and Vertical Partitioning
Q4.	A distributed database is which of the following?
Option A:	It is a single logical database that is spread to multiple locations and is interconnected by a network
Option B:	It is a loose collection of file that is spread to multiple locations and is interconnected by a network
Option C:	It is a single logical database that is limited to one location.
Option D:	It is a loose collection of file that is limited to one location

Q5.	The ____ protocol is used by the DP to roll back and/or roll forward transactions with the help of the system's transaction log entries.
Option A:	PREPARE-COMMIT-ROLLBACK
Option B:	DO-PREPARE-COMMIT
Option C:	COMMIT-ABORT
Option D:	DO-UNDO-REDO
Q6.	In the ____ statistical generation mode, the DDBMS automatically evaluates and updates the statistics after each access.
Option A:	static
Option B:	dynamic
Option C:	manual
Option D:	rule-based
Q7.	A ____ query optimization algorithm is based on a set of user-defined rules to determine the best query access strategy.
Option A:	statistically based
Option B:	rule-based
Option C:	manual
Option D:	dynamic
Q8.	____ transparency exists when the end user or programmer must specify both the fragment names and their locations.
Option A:	Local mapping
Option B:	Location
Option C:	Performance
Option D:	Transaction
Q9.	A(n) ____ database stores each database fragment at a single site.
Option A:	partially replicated
Option B:	instance replicated
Option C:	fully replicated
Option D:	unreplicated
Q10.	Under the ____ scenario, multiple processes run on different computers sharing a single data repository.
Option A:	single-site processing, single-site data
Option B:	multiple-site processing, single-site data
Option C:	single-site processing, multiple-site data
Option D:	multiple-site processing, multiple-site data
Q11.	A distributed ____ allows a transaction to reference several different remote sites
Option A:	request
Option B:	site
Option C:	data location

Option D:	transaction
Q12.	The ____ commit protocol guarantees that if a portion of a transaction operation cannot be committed, all changes made at the other sites participating in the transaction will be undone to maintain a consistent database state
Option A:	replicated
Option B:	two-phase
Option C:	remote
Option D:	distributed
Q13.	Which of the following concurrency control protocol is suitable for an application where frequency of read operation is much greater than that of write operation?
Option A:	Majority protocol
Option B:	Biased protocol
Option C:	Quorum-consensus protocol
Option D:	Single lock protocol
Q14.	Which of the following parallel database architectures is/are mainly used by distributed database system?
Option A:	Shared Memory
Option B:	Shared Disk
Option C:	Shared Nothing
Option D:	Hierarchical
Q15.	Global Wait-for graph is used for _____ in Distributed database.
Option A:	Handling concurrency control
Option B:	Handling failures
Option C:	Handling Integrity
Option D:	Handling deadlock
Q16.	The real use of the Two-phase commit protocol is _____
Option A:	Deadlock will not occur
Option B:	Concurrency control can be avoided
Option C:	Atomicity, i.e, all-or-nothing commits at all sites
Option D:	Query evaluation
Q17.	The ____ processor is the software component residing on each computer that stores and retrieves data located at the site.
Option A:	transaction
Option B:	network
Option C:	data
Option D:	management
Q18.	The process of finding good strategy for processing a query
Option A:	Query Optimization

Option B:	Query processing
Option C:	Query management
Option D:	Query cost
Q19.	The operation of natural joins are
Option A:	commutative
Option B:	Associative
Option C:	Distributive
Option D:	Conjunctive
Q20.	Commit and rollback are related to
Option A:	data consistency
Option B:	data integrity
Option C:	data sharing
Option D:	data security
Q21.	Ensuring isolation property is the responsibility of the
Option A:	Recovery-management component of the DBMS
Option B:	Concurrency-control component of the DBMS
Option C:	Transaction-management component of the DBMS
Option D:	Buffer management component in DBMS
Q22.	A sophisticated locking mechanism known as 2-phase locking which includes Growing phase and
Option A:	Shrinking Phase
Option B:	Release phase
Option C:	Commit phase
Option D:	Acquire Phase
Q23.	Which of the following is a disadvantage of replication?
Option A:	Reduced network traffic
Option B:	If the database fails at one site, a copy can be located at another site.
Option C:	Each site must have the same storage capacity.
Option D:	Each transaction may proceed without coordination across the network.
Q24.	Which of the following is not one of the stages in the evolution of distributed DBMS?
Option A:	Unit of work
Option B:	Remote unit of work
Option C:	Distributed unit of Work
Option D:	Distributed request
Q25.	A semijoin is which of the following?
Option A:	Only the joining attributes are sent from one site to another and then all of the rows are returned.

Option B:	All of the attributes are sent from one site to another and then only the required rows are returned.
Option C:	Only the joining attributes are sent from one site to another and then only the required rows are returned.
Option D:	All of the attributes are sent from one site to another and then all of the rows are returned.