

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: BE Computer Engineering

Curriculum Scheme: Rev 2012

Examination: Third Year Semester VI

Course Code: CPC603 and Course Name: Distributed Databases

Time: 1 hour

Max. Marks: 50

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

Q1.	Two important terms defining DDBMS are
Option A:	logically interrelated and distributed over computer network
Option B:	physically interrelated and distributed over computer network
Option C:	collection of files at each node of computer network
Option D:	logically separated and distributed over computer network
Q2.	BEA stands for
Option A:	Bond Energy Algorithm
Option B:	Bond Energy Allocation
Option C:	Business Enterprise Assessment
Option D:	Bond Evaluation Algorithm
Q3.	A Transaction ends _____
Option A:	only when it is initialized
Option B:	when it is Committed or Rolled-back
Option C:	only when it is Rolled-back
Option D:	only when it is Committed.
Q4.	Global Wait-for graph is used for _____ in a Distributed database.
Option A:	Handling failures
Option B:	Handling deadlock
Option C:	Handling concurrency control
Option D:	None of the above
Q5.	Cartesian Product the complexity is
Option A:	$O(n)$
Option B:	$O(n * \log n)$
Option C:	$O(\log n)$
Option D:	$O(n^2)$
Q6.	Which heterogeneous database systems are independent in nature and integrated together to function as a single database system.
Option A:	complex
Option B:	Un-federated
Option C:	homogeneous
Option D:	Federated
Q7.	Comment in XML document is given by
Option A:	<code><!-- --></code>
Option B:	<code><!-- --!></code>

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Option C:	<!-- -->
Option D:	</-- -- >
Q8.	A distributed database has which of the following advantages over a centralized database?
Option A:	Software cost
Option B:	Software complexity
Option C:	Slow Response
Option D:	Modular growth
Q9.	tuple in database is also called as
Option A:	column
Option B:	row
Option C:	attribute
Option D:	relation
Q10.	Global Wait-for graph is used for _____ in a Distributed database.
Option A:	Handling concurrency control
Option B:	Handling deadlock
Option C:	Handling failures
Option D:	Handling success
Q11.	Which way deadlock cannot be handled ?
Option A:	Deadlock detection
Option B:	Deadlock recovery
Option C:	Deadlock prevention
Option D:	Resource Allocation Graph
Q12.	The HDBMS has _____
Option A:	global DDL
Option B:	global DML
Option C:	global DSL
Option D:	local DML
Q13.	The DTD begins with the word:
Option A:	#PCDATA
Option B:	XML
Option C:	DOCTYPE
Option D:	HTTPS
Q14.	In DDBMS the user interface handler is used for
Option A:	interpreting user commands
Option B:	formatting the result data
Option C:	interpreting user commands and formatting the result data
Option D:	check if the user query can be processed.
Q15.	P1: $\sigma_{\text{project-type} = \text{"inside"}}(\text{project})$ P2: $\sigma_{\text{project-type} = \text{"abroad"}}(\text{project})$

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Option A:	P1 and P2 are horizontal fragments on relation project
Option B:	P1 and P2 are vertical fragments on relation project
Option C:	P1 and P2 are mixed fragments on relation project
Option D:	P1 and P2 are individual relations which is not related to project
Q16.	A transaction can do only read operation and not write operation on a data item when it acquires lock.
Option A:	read mode
Option B:	exclusive mode
Option C:	shared mode
Option D:	write mode
Q17.	The _____ graph describes deadlocks precisely
Option A:	Wait for graph
Option B:	Wound wait graph
Option C:	Wait die graph
Option D:	Resource Allocation graph
Q18.	Which of the following is not the step of query decomposition
Option A:	normalization
Option B:	analysis
Option C:	simplification
Option D:	query optimization
Q19.	DB is considered as heterogeneous if _____
Option A:	local nodes have different types of computers and operating systems
Option B:	local nodes have same types of computers and operating systems
Option C:	local nodes have different types of computers and same operating systems
Option D:	local nodes have same types of computers and different operating systems
Q20.	XML validated against a _____ is considered as Valid XML.
Option A:	JQUERY
Option B:	PARSER
Option C:	CFG
Option D:	DTD
Q21.	A vertical fragment is defined by using the _____ operation of relational algebra
Option A:	projection
Option B:	selection
Option C:	selection and projection
Option D:	natural join
Q22.	Timestamp-based concurrency control techniques generates
Option A:	Conflict schedules
Option B:	Non-serializable schedules
Option C:	serializable schedules
Option D:	serializable schedules

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Q23.	The deadlock prevention scheme named wound-wait is a
Option A:	Preemptive technique
Option B:	Linear preemptive technique
Option C:	Non- preemptive technique
Option D:	Non-linear preemptive technique
Q24.	_____ is used to check XML for syntax errors.
Option A:	XML Validator
Option B:	XML Parser
Option C:	XML Browser
Option D:	XQuery
Q25.	Symbol σ means
Option A:	select
Option B:	project
Option C:	union
Option D:	join

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	A
Q3.	B
Q4	B
Q5	D
Q6	D
Q7	C
Q8.	D
Q9.	B
Q10.	B
Q11.	D
Q12.	C
Q13.	C
Q14.	C
Q15.	A
Q16.	C
Q17.	C
Q18.	D
Q19.	A
Q20.	D
Q21.	A
Q22.	C
Q23.	A
Q24.	A
Q25.	A