University of Mumbai

Program: **Information Technology**
Curriculum Scheme: Rev2016 CBCGS
Examination: TE Semester V

Course Code: ITC503 and Course Name: Advanced Data Management Technology

Time: 2 hour   Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	A Data warehouse is a
Option A:	subject-oriented, accessible, time-variant, non-volatile
Option B:	subject-oriented, integrated, time-variant, non-volatile
Option C:	subject-oriented, accessible, time-invariant, non-volatile
Option D:	subject-oriented, integrated, time-invariant, volatile
2.	Which one is not DW Design Strategies?
Option A:	Top Down
Option B:	Bottom up
Option C:	Ralph Approach
Option D:	Up Down
3.	Dimensional Modeling doesn't include:
Option A:	Star Schema
Option B:	Snowflake Schema
Option C:	Galaxy Schema
Option D:	Cloud Schema
4.	The operation of moving from finer-granularity data to a coarser granularity is known as
Option A:	Rollup
Option B:	Drilldown
Option C:	Dicing
Option D:	Pivoting
5.	A homogeneous DDB 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

6.	A distributed database (DDB) is a collection of multiple logically related database distributed over
Option A:	same network
Option B:	different network
Option C:	isolated network
Option D:	computer network
7.	The relational algebra, projection happens in which fragmentation
Option A:	Vertical Fragmentation
Option B:	Horizontal Fragmentation
Option C:	Hybrid Fragmentation
Option D:	Simple Fragmentation
8.	Which technique is used to restore database after last failure
Option A:	Backup
Option B:	Recovery
Option C:	query optimization
Option D:	concurrency
9.	In ETL, which of this is a not data loading technique:
Option A:	load
Option B:	append
Option C:	Constructive merge
Option D:	collaborative merge
10.	In ETL, data extraction is the process of extracting data from
Option A:	same data source
Option B:	different data source
Option C:	simple data source
Option D:	complex data source
11.	ETL represents following activities
Option A:	Extract, Transform and Load
Option B:	Eject, Transform and Load
Option C:	Extract, Transaction and Lock
Option D:	Explain, Transaction and Lock
12.	A transaction is delimited by statements (or function calls) of the form _____.
Option A:	Begin transaction and end transaction
Option B:	Start transaction and stop transaction
Option C:	start transaction and end transaction
Option D:	start transaction and end transaction
13.	Which property of transaction is called "all-or-none" property?
Option A:	Atomicity
Option B:	Durability
Option C:	Consistency
Option D:	Isolation
14.	Which of the following is not the product of Spatial database

Option A:	IBM DB2 Spatial Extender
Option B:	Informix Spatial Datablade
Option C:	Oracle Spatial
Option D:	SQL
15.	The approach which is used checks the syntax of the query whether written according to the rule of grammar is classified as
Option A:	Query graph
Option B:	Query tree
Option C:	Scanner
Option D:	Parser
16.	What users first do to check whether the SQL Injection Attack can be done or not?
Option A:	Find the unvalidated parameter and run
Option B:	Directly run the SQL queries on the server
Option C:	Ries to find the version number of the database
Option D:	Directly run the SQL queries on the website
17.	To control access by a subject (an active entity such as individual or process) to an object (a passive entity such as a file) involves setting up:
Option A:	Access Rules
Option B:	Access Matrix
Option C:	Identification controls
Option D:	Access terminal
18.	Which of the following is NOT a valid access control mechanism?
Option A:	DAC (Discretionary Access Control)
Option B:	SAC (Subjective Access Control)
Option C:	MAC (Mandatory Access Control)
Option D:	RBAC (Role Based Access Control)
19.	Query decomposition involves converting
Option A:	calculus query into algebraic query
Option B:	algebraic query into calculus query
Option C:	calculus query into relational query
Option D:	relational query into algebraic query
20.	In ACID " I" stands for
Option A:	Irrelevant
Option B:	Integrity
Option C:	Isolation
Option D:	Independent

Q2	Solve any Two Questions out of Three 10 marks each
A	Express various fragmentation strategies in distributed database and explain any one in detail
B	Transcribe Query Optimization in Distributed Databases
C	Explain type of data extraction method in ETL process

Q3.	Solve any Two Questions out of Three 10 marks each
A	Explain ACID properties in Detail
B	Explain view Serializability with example.
C	Describe various OLAP operation with the examples