SRM Institute of Science and Technology
College of Engineering and Technology
School of Computing

Batch 1 SET A

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu
Academic Year: 2022-2023 (EVEN)

Answer Key

Test: CLAT-1 **Date: 15.2.2023**
Course Code & Title: 18CSC303J Database Management system **Duration:** 50 min
Year & Sem: III & VI **Max. Marks:** 25
Instruction: MCQs to be collected within first 10 minutes

Course Articulation Matrix:

S.No.	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	CO1	H	M	L									

Part - A
(5 x 1 = 5 Marks)
Instructions: Answer all

Q. No	Question	Marks	BL	CO	PO	PI Code
1	The conceptual model is A.Dependent on both hardware and software. B. Independent of both hardware and software. C. Dependent on software. D. Dependent on hardware.	1	2	1	1	1.6.1
2	____ describes the overall structure of the table A. Instance B. Schema C. Data Dictionary D. Meta data	1	2	1	1	1.6.1
3	Which component controls the interaction over multiple transactions, to ensure the consistency of the database? A. Transaction manager B. Buffer manager C. Concurrency control manager D. File manager	1	1	1	1	1.6.1
4	_____uses encapsulation, methods, and object identity for building a structure of database A. Relational data model B. Semi structured data model C. Object oriented data model D. Entity Relationship data Model	1	1	1	1	1.6.1
5.	___ property tells the problem of changing the address of a customer in savings account but it was not reflected in any other database in the bank. A. Atomicity B. Security C. Data Inconsistency D. Isolation	1	1	1	1	1.6.1

Part – B (2 x 4 = 8 Marks) Instructions: Answer any 2						
6	How the levels of abstraction will be helpful for different types of users? Illustrate the different levels with their functionalities. • Process of hiding unwanted or irrelevant details from the end user • Physical Level: Defines how the data is actually stored employing various data structures. • Logical level: Describes the relationship which exists among the stored data. • View level: Provides a high level view of a section of data.	**4**	**3**	**1**	**1**	**1.6.1**
7	Consider a Sports_detail table with the following schema. Sports_detail (Sports_code, Sports_name, Person_name, Age, Medals_received, Games_played) i) Write a SQL query to display the names of person starts with letter 'S'. **Select names from Sports_details where Person_name like 'S%'.** ii) Display the schema of the table **Desc table Sports_detail** iii) How drop and truncate will work in the Sports_detail table specify along with sql query. **Drop table Sports_details;** **Truncate table Sports_details;**	**4**	**3**	**1**	**2**	**2.7.2**
8	Using Data Manipulation Language commands, how to retrieve the data without specifying the procedure to retrieve data? Give an example. And also compare the method with its alternate technique. **1. Non procedural DML method – user specifies what data is required without specifying how to get those data. Eg: SQL** 2. **Procedural – user specifies what data is required and how to get those data. Eg: C program.**	**4**	**3**	**1**	**2**	**2.6.1**
Part – C Answer all (1 x 12 = 12 Marks)						
9	Consider a banking system. For storing customer information, tracking day-to-day credit and debit transactions, generating bank statements, work has been done with the help of Database management systems. **(i)** Specify what types of users are interacting with the system and their roles. • naive users (tellers, agents, web users) query processor storage manager disk storage indices data statistical	**12**	**4**	**1**	**3**	**3.6.2**

	data data dictionary • application programmers application interfaces application program object code compiler and linker buffer manager file manager authorization and integrity manager transaction manager DML compiler and organizer query evaluation engine DML queries DDL interpreter application programs query tools administration tools • sophisticated users (analysts) • database administrators **(ii)** Explain the scenario how the transaction failure is handled by the system. • ACID property • Concurrency control • Transaction control **(iii)** What is concurrent anomalies with respect to the transaction. Consider account A, with a balance of $10,000. If two bank clerks debit the account balance (by say $500 and $100, respectively) of account A at almost exactly the same time, the result of the concurrent executions may leave the account balance in an incorrect (or inconsistent) state. Suppose that the programs executing on behalf of each with drawal read the old balance, reduce that value by the amount being withdrawn, and write the result back. If the two programs run concurrently, they may both read the value $10,000, and write back $9500 and $9900, respectively. Depending on which one writes the value last, the balance of account A may contain either $9500 or $9900, rather than the correct value of $9400. **(iv)** Identify the functions of Banking data base administrator. • Schema definition. • Schema and physical-organization modification. Granting of authorization for data access. • Routine maintenance.					

Course Outcome (CO) and Bloom's level (BL) Coverage in Questions