

Enrollment No: _____

Exam Seat No: _____

C. U. SHAH UNIVERSITY

Winter Examination-2022

Subject Name : Database Management System

Subject Code : 4TE03DMS1

Branch: B.Tech (CE)

Semester: 3

Date: 16/01/2023

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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Q-1 Attempt the following questions: (14)

- a) is the powerful language for working with RDBMS
- b) SQL does not supports to perform nested function
 - a. True
 - b. false
- c) Which of the following is generally used for performing tasks like creating the structure of the relations, deleting relation?
 - a. Data Manipulation Language
 - b. Query
 - c. Relational Schema
 - d. Data Definition Language
- d) What is DBMS?
- e) What do you mean by one to many relationship between Teacher and Class table?
 - a. One class may have many teachers
 - b. One teacher can have many classes
 - c. Many classes may have many teachers
 - d. Many teachers may have many classes
- f) In one-to-many relationship the table on 'many' side is called _____
 - a. Parent
 - b. Child
 - c. Sister
 - d. Master
- g) Which of the following enables us to view data from a table based on a specific criterion
 - a. Form
 - b. Query
 - c. Macro



- d. Report
- h) This key that uniquely identifies each record is called :
 - a. Primary Key
 - b. Key Record
 - c. Unique Key
 - d. Field Name
- i) The overall description of a database is called_____.
 - a. Data integrity
 - b. Data manipulation
 - c. Database schema
 - d. Data definition
- j) It is possible to perform Views in SQL
 - a. True
 - b. false
- k) What is data dictionary?
- l) Define attribute in DBMS
- m) Foreign key is also known by referential integrity.
 - a. True
 - b. false
- n) Why super key is used in database?

Attempt any four questions from Q-2 to Q-8

Q-2	Attempt all questions	(14)
A	List out and explain advantages of DBMS.	07
B	Sketch out and explain the architecture of DBMS.	07
Q-3	Attempt all questions	(14)
A	Sketch out ER Diagram for railway reservation system.	07
B	Explain generalization and specialization.	07
Q-4	Attempt all questions	(14)
A	Sketch out ER Diagram for E-commerce system.	07
B	Explain any two fundamental relational algebra operation with suitable example.	07
Q-5	Attempt all questions	(14)
A	Discuss 1NF and 2NF with suitable example.	07
B	Describe transaction with suitable properties.	07
Q-6	Attempt all questions	(14)
A	Discuss 3NF and BCNF with suitable example.	07
B	What is deadlock? Explain two-phase commit protocol.	07
Q-7	Attempt all questions	(14)
A	List out and explain the steps for query processing.	07



B		07
	Explain Hierarchical data model and network model.	
Q-8	Attempt all questions	(14)
A	Write a short note on Meta data & computing join.	07
B	What is a checkpoint in DBMS? And when does checkpoint occur in DBMS?	07

