Enrollment No./Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA INTEGRATED - SEMESTER - II EXAMINATION - WINTER 2025

Subject Code: 2527107   **Date: 12-12-2025**

Subject Name: Database Management System

Time: 02:30 PM to 05:30 PM   **Total Marks: 70**

Instructions
1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. USE of SIMPLE calculators AND non-programmable scientific calculators are permitted.

		Marks
Q.1 (a)	Describe how Database Management System is helpful over the traditional database.	**07**
(b)	Define Data and information. Explain how raw data is transformed into meaningful information.Elaborate with real life examples.	**07**
Q.2 (a)	Explain database languages with their uses.	**07**
(b)	Compare and contrast different data models are used in DBMS.	**07**
	OR	
(b)	Discuss data independence and data abstraction.	**07**
Q.3 (a)	Define entity,attribute and relationship with example in detail.	**07**
(b)	State and explain various features of the ER model.	**07**
	OR	
(a)	What is the ER model, and why is it used in database design? How does it help in representing real-world entities and their relationships?	**07**
(b)	What is generalization? How is it different from specialization?	**07**
Q.4 (a)	What are the conditions required for a relation to be in 2NF, 3NF and BCNF explained with examples.	**07**
(b)	Explain about Integrity Constraints over relations in detail?	**07**
	OR	
(a)	What are functional dependencies? How it works in DBMS.	**07**
(b)	Explain SQL language with their functions.	**07**
Q.5 (a)	What is a sub query?Also, explain scenarios where sub queries are preferred with an example of a student database.	**07**
(b)	How to create ,update, and delete view in SQL, Explained with an example.	**07**
	OR	

(a) Explain the purpose of the GROUP BY clause in SQL. How does it work? Provide an examples that demonstrate grouping on one and multiple columns.   **07**

(b) Explain SUM(), AVG(), COUNT(), MAX(), and MIN() function.Provide an example of each functions with select statement.   **07**

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