U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

July 2023 Semester End Main Examinations

Programme: B.E. **Semester: VI**
Branch: Industrial Engineering and Management **Duration: 3 hrs.**
Course Code: 20IM6DEDBM **Max Marks: 100**
Course: Database Management System **Date: 19.07.2023**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

			UNIT - I	CO	PO	Marks
1	a)		Define DBMS. Briefly explain the characteristics of the database approach.	*CO1*	-	**10**
	b)		Explain DBMS architecture and data independence	*CO1*	-	**10**
			OR			
2	a)		Explain high level conceptual data models for database design	*CO1*	-	**08**
	b)		Design an ER diagram for a library system of your college assuming your own data.	*CO3*	*PO3 PO4*	**12**
			UNIT - II			
3	a)		What are secondary storage devices	*CO2*	*PO1*	**05**
	b)		Briefly explain buffering of blocks	*CO2*	*PO3*	**05**
	c)		Define Hushing. Explain the hashing techniques	*CO2*	*PO3*	**10**
			UNIT - III			
4	a)		Briefly explain the CODD rules	*CO3*	*PO3*	**08**
	b)		Explain the concepts in relational Model	*CO3*	*PO3*	**06**
	c)		Give examples for additional relational algebraic operations	*CO3*	*PO3*	**06**
			OR			
5	a)		Define SQL. Give the syntax for Create, Insert, delete, update statements in SQL.	*CO4*	*PO3 PO4*	**12**
	b)		What are embedded SQL. Give examples	*CO4*	*PO3 PO4*	**08**
			UNIT - IV			
6	a)		Explain the design guidelines for relational schemes	*CO4*	*PO4*	**05**

		b)	Explain the factors influencing physical database design guidelines	*CO4*	*PO4*	**05**
		c)	Explain the database design process with suitable example.	*CO4*	*PO3*	**10**
			UNIT - V			
	7	a)	Explain the properties of transactions	*CO3*	*PO4*	**04**
		b)	Briefly explain concurrency control & recovery techniques in system implementation	*CO3*	*PO4*	**08**
		c)	Explain object oriented databases with suitable example.	*CO4*	*PO4*	**08**

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