

Code: 20EC4702D

**IV B.Tech - I Semester – Regular / Supplementary Examinations  
OCTOBER 2024**

**DATABASE MANAGEMENT SYSTEMS  
(ELECTRONICS & COMMUNICATION ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
<b>UNIT-I</b>					
1	a)	Summarize the characteristics of database approach.	L2	CO1	7 M
	b)	Explain the brief history of database applications.	L2	CO1	7 M
<b>OR</b>					
2	a)	Illustrate the categories of data models.	L3	CO1	7 M
	b)	Explain three tier architecture of DBMS.	L2	CO1	7 M
<b>UNIT-II</b>					
3	a)	Explain in detail Relational model notation.	L2	CO2	7 M
	b)	Write about Data definition language commands.	L2	CO2	7 M
<b>OR</b>					

4	a)	Explain about key constraints in SQL.	L2	CO2	7 M
	b)	Classify Data types in SQL.	L2	CO2	7 M
<b>UNIT-III</b>					
5	a)	Discuss the role of a high-level data model in the database design process.	L2	CO1	7 M
	b)	Examine the conventions for displaying an ER schema as an ER diagram.	L3	CO3	7 M
<b>OR</b>					
6	a)	Illustrate about weak entity in database.	L3	CO3	7 M
	b)	Demonstrate the notation of ER diagrams.	L3	CO1	7 M
<b>UNIT-IV</b>					
7	a)	Explain the advantages and disadvantages of normalization.	L2	CO3	7 M
	b)	Illustrate the Second Normal Form (2 NF) in database.	L3	CO3	7 M
<b>OR</b>					
8	a)	What do you understand by a transaction? In what situation a transaction is said to be committed or aborted?	L2	CO4	7 M
	b)	Illustrate the First Normal Form (1 NF) in database.	L3	CO1	7 M
<b>UNIT-V</b>					
9	a)	Illustrate Two-phase locking protocol.	L3	CO1	7 M
	b)	Why concurrency control is needed? Illustrate with an example.	L3	CO1	7 M

**OR**

10	a)	How schedules are Characterized based on Recoverability?	L3	CO1	7 M
	b)	Examine different types of failures. What is meant by catastrophic failure?	L3	CO1	7 M