SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year I Semester Regular & Supplementary Examinations December-2023
DATABASE MANAGEMENT SYSTEMS
(Common to CSE,CSM,CAD,CAI & CSIT)

Time: 3 Hours   **Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1	a	Explain the Architecture of Database with a neat diagram.	CO1	L2	6M
	b	Create the DDL Commands – Table Creation, Altering the table structures, truncating a table and dropping a table.	CO1	L6	6M

OR

2	a	Distinguish between Relationship and Relationship set.	CO2	L5	6M
	b	Develop the DML Commands – Insert, Select Commands,update& delete Commands.	CO1	L6	6M

UNIT-II

3		What is a Join? Discuss about various joins used in SQL.	CO1	L2	12M

OR

4	a	Distinguish different types of aggregate operators with examples in SQL.	CO1	L5	6M
	b	What are Views in SQL? Give an example.	CO1	L2	6M

UNIT-III

5	a	Consider the schema: R (A, B, C, G, H, I) and the set of FD's (A $\rightarrow$ B, A $\rightarrow$ C, CG $\rightarrow$ H, CG $\rightarrow$ I, B $\rightarrow$ H). Prove the members of F^+: A $\rightarrow$ H, CG $\rightarrow$ HI, AG $\rightarrow$ I with axioms is true.	CO3	L5	6M
	b	Define Decomposition. List out the properties of decomposition.	CO3	L1	6M

OR

6		Outline the terminologies: Partial Dependency, Transitive Dependency, Determinant, MVD, Join Dependency.	CO3	L2	12M

UNIT-IV

7	a	What is a Transaction? Explain the States of the transaction with a neat sketch.	CO4	L2	6M
	b	Discuss various concurrency control protocols.	CO5	L2	6M

OR

8		Explain briefly about serializability with example.	CO5	L2	12M

UNIT-V

9	a	Discuss about Recoverability.	CO5	L2	6M
	b	Explain about failure with loss of non-volatile storage.	CO6	L2	6M

OR

10	a	Distinguish between fixed length records and variable length records.	CO6	L5	6M
	b	Which level of RAID is best? Why?	CO6	L2	6M

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