Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year I Semester Regular Examinations May-2022
DATABASE MANAGEMENT SYSTEMS
(Common to CSE, CSIT & CSM)

Time: 3 hours   Max. Marks: 60

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

UNIT-I

1	a	Construct ER Diagram for Hospital managementsystem.	L3	6M
	b	List out the purpose of Database Systems.	L2	6M

OR

2	a	Write a short note on Database users and administrators.	L1	6M
	b	Create the DDL Commands – Table Creation, Altering the table structures, truncating a table and dropping a table.	L2	6M

UNIT-II

3	a	Categorize the types of joins.	L1	6M
	b	Discuss about Complex integrity constraints in SQL.	L2	6M

OR

4	a	Create a sub query to establish the WHERE, ANY, AS and ALL sub queries with example.	L1	6M
	b	Evaluate project, join, select and product set operators with examples.	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.	L1	6M
	b	Define Decomposition. List out the properties of decomposition.	L2	6M

OR

6	a	Explain in detail about 1NF, 2NF, 3NF and BCNF with example.	L2	6M
	b	The relation schema Student_Performance (name, courseNo, rollNo,grade) has the following FDs: name,courseNo->grade rollNo,courseNo->grade name->rollNo rollNo->name What is the highest normal form of this relation scheme?	L2	6M

UNIT-IV

7	a	Explain ACID properties and illustrate them through examples?	L2	6M
	b	Discuss various concurrency control protocols.	L1	6M

OR

8	a	Identify the deadlock and 2-phase locking to ensure serializability in concurrency control with locking methods.	L2	6M
	b	Define a Transaction? List the properties of transaction.	L1	6M

UNIT-V

9	a	Discuss about Times tamp based locking protocols.	L2	6M
	b	Explain in detail about ISAM.	L2	6M

OR

10	a	Explain how recovery is done using undo logging and redo logging.	L1	6M
	b	What are the types of storage devices?	L2	6M

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