Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year II Semester Regular Examinations October-2022
DATABASE MANAGEMENT SYSTEMS
CSE (Internet of Things and Cyber Security Including Block Chain Technology)

Time: 3 hours   Max. Marks: 60

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

UNIT-I

1	a	Discuss about the Data Abstraction and discuss levels of Abstraction.	L1	6M
	b	Implement the DML Commands – Insert, Select Commands, update& delete Commands.	L3	6M

OR

2	a	Construct an Entity-Relationship diagram for a online shopping systems such as Amazon	L3	6M
	b	Define Database. Discuss about applications of Database Systems.	L1	6M

UNIT-II

3	a	Evaluate project, join, select and product set operators with examples.	L3	6M
	b	Explain various types of aggregate operators with examples in SQL.	L2	6M

OR

4	a	Create a sub query to establish the WHERE, ANY, AS and ALL sub queries with example.	L3	6M
	b	Develop the working of union, intersection and except operations.	L2	6M

UNIT-III

5	a	What is Normalization? List out the purpose normalization.	L1	6M
	b	Consider the relation scheme R = {E, F, G, H, I, J, K, L, M, M} and the set of functional dependencies {{E, F} → {G}, {F}→ {I, J}, {E, H} → {K, L}, K → {M}, L → {N} on R. What is the key for R	L3	6M

OR

6	a	Compare 3NF and BCNF with suitable example.	L2	6M
	b	Consider the schema: R (A, B, C, G, H, I) and the set of FD's (A → B, A → C, CG → H, CG → I, B → H). Prove the members of F^+ : A → H, CG → HI, AG → I with axioms is true.	L3	6M

UNIT-IV

7	a	Discuss about different phases (states) of transaction.	L2	6M
	b	Demonstrate Conflict Serializability.	L2	6M

OR

8		Explain ACID properties and illustrate them through examples.	L2	12M

UNIT-V

9	a	Distinguish between fixed length records and variable length records.	L2	6M
	b	Explain about the deadlock prevention schemes.	L2	6M

OR

10	a	Illustrate classification of storage structure.	L3	6M
	b	Explain Buffer Management in concurrency control system.	L2	6M

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