MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
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MLRS

II B.Tech I Sem Regular End Examination, February-2022
Database Management Systems
(CSC, CSD, CSE, CSI & IT)

Max. Marks: 70

Note: 1. Question paper consists: Part-A and Part-B.
2. In Part – A, answer all questions which carries 20 marks.
3. In Part – B, answer any one question from each unit.
    Each question carries 10 marks and may have a, b as sub questions.

PART- A
(10*2 Marks = 20 Marks)

1.	a)	What is DBMS? What are the goals of DBMS?	2M	CO1	BL1
	b)	What is a derived attribute? Give examples.	2M	CO1	BL1
	c)	What is a candidate key?	2M	CO2	BL1
	d)	Write about views in SQL language?	2M	CO2	BL1
	e)	Define functional dependency.	2M	CO	BL1
	f)	What is an active database?	2M	CO	BL1
	g)	Define locking protocol.	2M	CO3	BL1
	h)	List the two rules of 2PL protocol.	2M	CO3	BL1
	i)	What is a sparse index?	2M	CO4	BL1
	j)	What is a primary memory on disk?	2M	CO4	BL1

PART- B
(10*5 Marks = 50 Marks)

2	a)	Compare and contrast file systems with database systems.	5M	CO1	BL2
	b)	Explain database users and functions of DBA.	5M	CO1	BL4

OR

3	Construct an ER diagram for online e-commerce application such as Amazon. Incorporate all the features of entity relationship model.	10M	CO1	BL5

4	a)	What is a domain constraint? Explain with an example.	5M	CO1	BL4
	b)	Define view. How to create a view?	5M	CO1	BL1

OR

5	Discuss the operators used in Relational Algebra to write queries for data access.	10M	CO1	BL2

6	a)	What is meant by partial functional dependency? Explain second normal form.	5M	CO2	BL4
	b)	Elaborate normalization. Explain any two normal forms with example.	5M	CO2	BL5

OR

7	Consider the following database schema to write queries in SQL: EMP(eid, ename, ecity) COMPANY(Cno,Cname,Ccity) WORKS(eid,Cno,Salary) (i) Find the employees from Hyderabad. (ii)Find the companies located at Warangal (iii) Find the employees working at Karimnagar (iv) Find the name of the employee getting maximum salary (v) List the employee ids getting more than average salary of all the employees.	10M	CO3	BL3

8	a)	What is transaction? Explain the ACID properties of transaction.	5M	CO3	BL4
	b)	Explain multiple granularity concept.	5M	CO3	BL4

OR

9	How to recover a system with concurrent transactions from a crash? Explain with illustrations.	10M	CO3	BL2

10	a)	Differentiate between primary and secondary index.	5M	CO4	BL2
	b)	What is the significance of multi level indexing?	5M	CO4	BL1

OR

11	Demonstrate bulk loading of B+ tree indexing structure with suitable data records.	10M	CO4	BL5

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