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Department of Artificial Intelligence & Machine Learning

Acharya Institute of Technology

Acharya Dr. Sarvepalli Radhakrishnan Road, Acharya P.O., Soladevanahalli, Bangalore-560107, INDIA
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MODULE ASSESSMENT TEST -   4 [Academic Year: 2024-25]

Sub with Code: DBMS- BCS403
Semester/Section: 4 A
Max Marks: 20   **Duration: 1Hr**
Note: Answer any 2 of the following questions.(10 Marks Each) **Date: 30-05-2025**

Q. No.	Question	CO	BL
1	What is normalization? Why is it important?	2	L3
2	**Explain informal design guidelines for relation schemas:** Semantics clarity Redundancy NULL values Spurious tuples	2	L3
3	Explain 1NF, 2NF, and 3NF with examples.	2	L3
4	Discuss the problems of redundancy and update anomalies.	2	L4
5	What is concurrency control? Explain with example of lost update problem.	3	L5
6	Explain serializability and conflict serializability with example.	3	L5
7	What is deadlock? How can it be detected and resolved in DBMS?	4	L5
8	Describe shared and exclusive locks. Explain how they are used in locking protocol.	4	L5
9	Write SQL queries using JOIN (INNER, LEFT, RIGHT) to fetch data from multiple tables.	4	L4
10	Differentiate between MongoDB and traditional RDBMS.	5	L5

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