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Department of Artificial Intelligence & Machine Learning
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MODULE ASSESSMENT TEST - 2 [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: 21-03-2025**

Q. No.	Question	CO	BL
1	Define the following terms: a) Key b) Superkey c) Candidate key d) Primary key e) Foreign key	2	L2
2	Given the relational schema: Works(Pname, Cname, Salary) Company(Cname, City) Write relational algebra queries for the following: ● List the names of people working for the company "Infosys" along with their city. ● Find the names of employees earning more than every employee of "TCS". ● Retrieve the names of people who work and live in the same city.	2	L3
3	Given the following schema: Student(SID, Name, Dept, CGPA) Enrolled(SID, CourseID, Grade) Course(CourseID, Title, Credits) Write **relational algebra** expressions to: ● Find the names of students enrolled in the course "DBMS". ● List all courses in which students from the “AIML” department are enrolled. ● Retrieve names of students who have enrolled in at least two different courses.	2	L3
4	Explain the steps involved in converting an **ER diagram** into a **relational schema**.	2	L3

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	Consider the following scenario and perform ER-to-relational mapping: ● A **Company** employs many **Employees**. ● Each **Employee** works on one or more **Projects**. ● Each **Project** is controlled by a **Department**. ● Each **Employee** is assigned to one Department. Draw the ER diagram and then convert it to relational tables with appropriate keys and constraints.		