PGDCA
Semester II

Course Code	PS02CDCA22	Title of the Course	DATABASE MANAGEMENT SYSTEMS
Total Credits of the Course	4	Hours per Week	4

Main Focus of the Course outcomes	Employability	Skill Development	Entrepreneurship
	✓	✓	
Course Objectives:	1. To introduce students to relational model, E-R diagram, normalization. 2. To introduce students to database transaction, concurrent access and database locking mechanism. 3. To introduce students to SQL and PL/SQL.		

Course Content		
Unit	Description	Weightage* (%)
1.	**Relational model** – Relational model concept – E-R diagram and its conversion to relations – Normalization – Introduction to transactions – Concurrent access to database and related problems – Introduction of Locking techniques	25
2.	**SQL** – Data definition, queries, grouping and ordering – Insert,delete,update – Constraints: Primary key and Foreign key – Built in functions	25
3.	**Procedural Language I** – Data types, variables and constants, assignment – Conditional control, iterative control and display messages	25

4.	**Procedural Language II** – Introduction of Implicit and explicit cursors and its attributes – exception handling – Procedures – Functions – Introduction of triggers	25

Teaching-Learning Methodology	Blended learning approach incorporating traditional classroom teaching as well as online / ICT-based teaching practices

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to	
1.	understand relational model, E-R diagram, normalization.
2.	understand database transaction, concurrent access and database locking mechanism.
3.	understand SQL and PL/SQL

Suggested References:	
Sr. No.	References
1.	Elmasri And Navathe :Fundamentals of Database Systems, Addison-Wesley Publishing Co. 1994.
2.	John G. Hughes: Database Technology A Software Engineering Approach, Prentice Hall International Series 1993.

3.	Ivan Bayross: SQL , PL/SQL BPB Publications.
4.	System Manuals.

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