



Lesson Plan & Work Done Diary for AY: 2024-2025

EVEN SEMESTER

Course with Code: DATABASE MANAGEMENT SYSTEMS- BCS403				Faculty Name: Dr. Neethi M. V			Semester & Section: IV	
Class No.	Date Planned (DD/MM/YYYY)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM/YYYY)	Topics Covered	TLP Executed	Remarks if any deviation

MODULE-1

1	Introduction, Characteristics Of Database Approach.	PPT Chalk and Talk	1					
2	Advantages of using the DBMS approach, History of database applications.	PPT Chalk and Talk	2					
3	Data Models, Schemas and Instances	PPT Chalk and Talk	3					
4	Three Schema Architecture and Data Independence, Database Languages & Interfaces	PPT Chalk and Talk	4					
5	The Database System Environment, Entity types	PPT Chalk and Talk	5					
6	Entity sets, Structural Constraints	PPT Chalk and Talk	6					
7	Weak Entity Types, ER Diagrams	PPT Chalk and Talk	7					
8	Examples, Specialization and Generalization.	PPT Chalk and Talk	8					

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MODULE-2

9		Relational Model Concepts,	PPT Chalk and Talk	9				
10		Relational Model Constraints. Relational Database Schemas,	PPT Chalk and Talk	10				
11		Update Operations, Transactions and Dealing with Constraint Violations.	PPT Chalk and Talk	11				
12		Unary & Binary Relational Operations.	PPT Chalk and Talk	12				
13		Additional Relational Operations	PPT Chalk and Talk	13				
14		Examples of Queries in Relational Algebra.	PPT Chalk and Talk	14				
15		Relational Database Design using ER-to-Relational mapping.	PPT Chalk and Talk	15				

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MODULE-3

16		Introduction to normalization	PPT Chalk and Talk	16				
17		Informal Design Guidelines for Relation Schema, Functional Dependencies.	PPT Chalk and Talk	17				

18		Normal Forms based on Primary Keys	PPT Chalk and Talk	18			
19		Second and Third Normal Forms	PPT Chalk and Talk	19			
20		Boyce-Codd Normal Form. Multivalued Dependency and Fourth Normal Form,	PPT Chalk and Talk	20			
21		Join Dependencies and Fifth Normal Form.	PPT Chalk and Talk	21			
22		SQL Data Definition & Data Types.	PPT Chalk and Talk	22			
23		Schema change statements in SQL.	PPT Chalk and Talk	23			
24		Specifying Constraints in SQL,	PPT Chalk and Talk	24			
25		Retrieval Queries in SQL.	PPT Chalk and Talk	25			
26		INSERT, DELETE, UPDATE Statements in SQL	PPT Chalk and Talk	26			
27		Additional Features Of SQL.	PPT Chalk and Talk	27			

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MODULE-4

28		More Complex SQL Retrieval Queries.	PPT Chalk and Talk	28			
29		Specifying Constraints as Assertions	PPT Chalk and Talk	29			

30		Action Triggers, Views in SQL.	PPT Chalk and Talk	30				
31		Introduction to Transaction Processing	PPT Chalk and Talk	31				
32		Desirable Properties of Transactions, Characterizing Schedules Based on Recoverability & Serializability.	PPT Chalk and Talk	32				
33		Transaction Support In SQL.	PPT Chalk and Talk	33				

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MODULE-5

34		Two-Phase Locking , Concurrency Control Based on Timestamp Ordering	PPT Chalk and Talk	34				
35		Concurrency Control Techniques	PPT Chalk and Talk	35				
36		Granularity Of Data Items & Multiple Granularity Locking	PPT Chalk and Talk	36				
37		Introduction to NOSQL Systems, The CAP Theorem.	PPT Chalk and Talk	37				
38		Document-Based NOSQL Systems	PPT Chalk and Talk	38				
39		Column-Based or Wide Column NOSQL Systems	PPT Chalk and Talk	39				
40		NOSQL Graph Databases and Neo4j.	PPT Chalk and Talk	40				

	Activity	Planned	Actual	Remarks
1	Theory Classes	40		
2	Assignments/ Quizzes/ Self-study	3		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	40%		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	