

SREE VIDYANIKETHAN ENGINEERING COLLEGE

(AUTONOMOUS) SREE SAINATH NAGAR, TIRUPATI – 517 102

Department of Computer Science and Engineering

Lesson Plan cum Diary 2015-16

: Advanced Database Management System (14MT10502) **Name of the Subject**

Name of the faculty Members : Mr.B.Gurunadha Rao

Class & Semester : M. Tech. (CS) - I Semester

S. No.	Торіс	No. of periods required	Date(s) covered	No. of periods used	Book(s) followed	Topics for self study	
UNIT-I: DATABASE LANGUAGES AND ARCHITECTURE, RELATIONAL MODEL, CONCEPTUAL DATA MODELING							
1.	Introduction to Databases,	3	DATANIC	DELING	T1		
	Overview of Database				11		
	Languages and Architecture,						
	The Basic Relational Model						
2.	Conceptual Data Modeling	2			T1		
	Using Entities and						
	Relationships: Using High-					Concentual Data	
	Level Conceptual data					Conceptual Data	
	Model for Database Design,					Modeling Using Entities and	
3.	A Sample Database	2			T1	Relationships:	
	Application, Entity Types,					subclasses, Super	
	Entity Sets, Attributes, and					classes, and	
	Keys					Inheritance,	
4.	Relationship Types,	2			T1	Specialization and	
	Relationship Sets, Roles,					Generalization in	
	and Structural Constraints,					EER,	
	Weak Entity Types,					LEIK,	
	Refining the ER Design for						
	the COMPANY Database,						
5.	ER Diagrams, Naming	2			T1		
	Conventions, and Design						
	Issues, Relationship Types						
	of Degree Higher than Two				<u> </u>		
	Total no of periods required:	11			riods used:	rr	
	UNIT-II: SQL, OB,	1	ATIONAL	DATABAS			
6.	Mapping a Conceptual	2			T1	Formal Relational	
	Design into a Logical					Languages: The	
7	Design COL - Data Definition	2			T-1	Algebra and	
7.	SQL: Data Definition,	2			T1	Calculus	
	Constraints, Basic Queries						
8.	and Updates	3			Tr 1		
ŏ.	Advanced Queries,	3			T1		
	Assertions, Triggers, and						
	Views]			

9.	Object and Object-	3		T1	
J.	Relational Databases:	3		11	
	Concepts, Models,				
	Languages and Standards				
10		2		T1	-
10.	XML: Concepts, Languages, and Standards	2		11	
	Total no of periods required:	12	Total no of	periods used:	
	UNIT-III: DATABA				
11.		3		T1	
	Introduction to				
	Normalization Using				
	Functional and Multivalued				
	Dependencies				SQL Application
12.		3		T1	Programming
13.		3		11	using C and JAVA
13.	Unordered, Ordered	3			
14.	Hashed Files of Records	2		T1	_
17.	Hashed Piles of Records	2		11	
	Total no of periods required:	11	Total no of	periods used:	
UNIT-	-IV: QUERY AND TRANSAC				
15.		2			
	Processing and Query			T1	
	Optimization Techniques				
16.	Introduction to Database	1			
	Tuning and Physical Design	-		T1	Database File
	Issues				Indexing
17.		3			Techniques, B
	Transaction Processing			T1	Trees, and B+
18.	Introduction to Protocols for	2			Trees
	Concurrency Control in	_		T1	
	Databases				
19.	Introduction to Database	2			
	Recovery Protocols	_			
	Total no of periods required:	10	Total no of	periods used:	
			BUTED DATABA		1
20.	Introduction to Distributed	3		T1,T2	A 1 1
	Databases: Concepts, Types				Advanced
	of Distributed Database				Database Models
	Systems, Distributed				and Applications
	Database Architectures				
21.	Data Fragmentation,	3		T1,T2	7
	Replication, and Allocation			ĺ	
	Techniques for Distributed				
	Database Design,				
22.		2		T1,T2	7
	Optimization, Overview of	-		,	
	Transaction Management				
	misut troil i i mingoilloilt		1		1

23.	Overview of Concurrency	2			T1,T2	
	Control and Recovery,					
	Distributed catalog					
	management, Current					
	Trends, Distributed					
	Databases in Oracle					
24.	Emerging Database	2			T1	
	Technologies and					
	Applications					
	Total no of periods required:		Total no of periods used:			
Gra	Grand total of periods required:					

TEXTBOOKS:

- T1: Ramez Elmasri & Shamkant B. Navathe, "Database Systems: Models, Languages, Design and Application Programming," Sixth Edition, New Delhi, Pearson Education, 2013.
- T2: M. Tamer Ozsu, Patrick Valduriez, "Principles of Distributed Database System," Second Edition, New Delhi: Pearson Education, 2006.

REFERENCE BOOKS:

- R1: Thomas M. Connolly, Carolyn E. Begg, "Database Systems A Practical Approach to Design, Implementation and Management," Third Edition, New Delhi: Pearson Education, 2003.
- R2: Stefano Ceri, Giuseppe Pelagatti, "Distributed Databases Principles and Systems," N.Y: McGraw-Hill International Editions, 1985.
- R3: Rajesh Narang, "Object Oriented Interfaces and Databases," New Delhi: Prentice Hall of India, 2002.
- R4: Abraham Silberchatz, Henry F. Korth, S. Sudarsan, "Database System Concepts," Fifth Edition, N.Y: McGraw-Hill, 2006