

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

RAJASTHAN TECHNICAL UNIVERSITY, KOTA

LECTURE PLAN

ADVANCED DATA BASE MANAGEMENT SYSTEMS (VII SEM- IT)

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S.No.	Chapter Title	Lectures	Contents of the Lectures
1	Query Processing and Optimization	1	Measures of query cost
		2	Implementation of database operations,
		3	External Sorting
		4	Materialization vs. Pipelining,
		5	Size Estimations of various database operations
		6	Evaluation plans
		7	Cost-based vs. Heuristic optimization, Materialized views
2	Transaction Processing and Serializability	8	Database Transaction and its processing
		9	Transaction properties
		10	Concurrent Transactions
		11	Need of Serializability
		12	Conflict vs. View Serializability
3	Concurrency and Recovery	13	Implementation of Concurrency
		14	Lock-based protocols
		15	Timestamp-based protocols
		16	Deadlock handling
		17	Database Failures
		18	Recovery Schemes
		19	Shadow Paging
		20	Log-based Recovery
		21	Recovery with Concurrent transactions
4	Database Security and Advanced SQL	22	Database Integrity Constraints
		23	Assertions
		24	Triggers in SQL
		25	Authorization and Authentication in SQL
		26	Nested Subqueries
		27	Views
		28	Embedded SQL
5	Distributed Database Systems	29	Data Storage in Distributed systems
		30	Local Transactions
		31	Global Transactions
		32	Transaction processing
		33	Concurrency in Distributed database systems
		34	Recovery in Distributed database systems
		35	Distributed Query processing