Code: CST305	**DBMS**	**Credit: 04** **L-T-P: (3-1-0)**
Course Content	Need, purpose and goal of DBMS, Three tier architecture, ER Diagram, data models- Relational, Network, Hierarchical and Object Oriented. Data Base Design: Conceptual data base design, Theory of Normalization, Primitive and Composite data types, concept of physical and logical databases, data abstraction and data independence, data aggregation, Relational Calculus. SQL : DDL and DML, Relational Algebra. Application Development using SQL : Host Language interface, embedded SQL programming, Stored procedures and triggers and views, Constraints assertions. Internal of RDBMS : Physical data organisation in sequential, indexed random and hashed files. Inverted and multilist structures, B trees, B+ trees, Query Optimisation, Join Algorithm, Statistics and Cost Base optimisation. Transaction Processing, concurrency control, and recovery management. Transaction model properties and state serialisability . Lock base protocols, two phase locking.	
Important Text Books/References	1. H.f. Korth and Silberschatz: Database Systems Concepts, McGraw Hill 2. Almasri and S.B. Navathe: Fundamentals of Database Systems, 3. C.J. Date: Data Base Design, Addison Wesley 4. Hansen and Hansen : DBM and Design, PHI	