

III B.Sc (Computer Science) - V Semester

DATABASE MANAGEMENT SYSTEMS

UNIT I

Purpose of Database Systems - Overall System Structure – Entity relationship Model - Mapping Constraints - Primary Keys - Foreign Keys - ER-Diagrams.

UNIT II

Relational Model - Relational Algebra - Tuple, Domain Relational Calculus –QBE-Security and Authorization-Authorization in SQL - Encryption and Authentication.

UNIT III

Normalization-Introduction - Functional Dependency - First,Second,Third and Boyce Codd Normal Forms - Multivalued dependency – Fourth Normal Form-Good and Bad decomposition.

UNIT IV

Concurrency Control-Lock Based, Timestamp Based, Validation Based Protocols - Deadlock Handling - Recovery System - Log Based Recovery- Shadow Paging - Recovery with Concurrent Transactions – Introduction to Distributed Database.

UNIT V

ORACLE - Approach and Advantages – SQL – PL/SQL-PL/SQL blocks-Variables - Manipulating Data - Exception Handling – Procedures - Functions- Packages - Triggers.

BOOKS FOR STUDY:

1. H.F.Korth and A.Silberschatz-Database System Concepts – McGraw Hill - International Publication - 1988.
2. C.J. Date - An Introduction to Database Systems - Narosa Publishing House.
3. ORACLE Complete Reference – Oracle Corporation