

Database Management Systems (Using SQL Server)

UNIT - I

Data, Information and knowledge, introducing database and different kinds of database users, concept of a database, interacting with a database (03). Architecture of a database, using relational databases, basics of relational databases, using relational databases (03). Identifiers for relations, characteristic of database, database system concepts and data independence, content of data dictionary, data administration function (04).

Lectures: 10

UNIT - II

Traditional data model – ANSI/SPRC, 3-level architecture, overview of three traditional models – hierarchical, network and relational models, comparison of these models (02). ER model (02). File organization technique – random, file organization technique, multi-key file organization technique, Indexing (03). Concurrency control, database security, database recovery (04).

Lectures: 11

UNIT - III

Data Normalization (02). Introduction to SQL: Characteristics and advantages, SQL Data Types and Literals, DDL, DML, SQL Operators (04). Tables: Creating, Modifying, Deleting, Views: Creating, Dropping, Updating using Views. SQL DML Queries: SELECT Query and clauses, Set Operations, Predicates and Joins, Aggregate Functions, Nested Queries (06).

Lectures: 12

UNIT - IV

Specifying constraints and indexes in SQL, data manipulation, multiple table operations (06). Database Modification using SQL Insert, Update and Delete, T-SQL: Cursor, concept of Stored Procedures, Functions and Triggers (06).

Total Lectures: 12