

**III YEAR – V SEMESTER
COURSE CODE: 7BCE5C2**

CORE COURSE-X–RELATIONAL DATABASE MANGEMENT SYSTEMS

Unit I

Introduction: Database System Applications – Purpose of Database Systems – View of Data– Database Languages – Relational Databases – Database Design – Object based and semi structured databases – Data storage and Querying – Database Users and Administrators– Transaction Management – Database users and Architectures – History of Database System.

Entity-Relationship Model: E-R model – constraints – E-R diagrams – E-R design issues – weak entity sets – Extended E-R features.

Unit II

Relational Database Design: Features of good Relational designs – Atomic domains and First Normal Form – Decomposition using functional dependencies – Functional dependency theory – Decomposition using functional – Decomposition using multivalued dependencies – more Normal forms – database design process – modeling temporal data

Unit III

Database System Architecture: Centralized and Client-Server architecture – Server system architecture – parallel systems – Distributed systems – Network types. Parallel databases: I/O parallelism – Interquery Parallelism – Intraquery parallelism. Distributed Databases: Homogeneous and Heterogeneous databases – Distributed Data storage – Distributed transactions – Distributed query processing.

Unit IV

Schema Objects Data Integrity – Creating and Maintaining Tables – Indexes – Sequences – Views – Users Privileges and Roles –Synonyms.

Unit V

PL/SQL: PL/SQL – Triggers – Stored Procedures and Functions – Package – Cursors – Transaction

Text Books:

1. Database System Concepts – SilberschatzKorthSudarshan, International (5th Edition) McGraw Hill Higher Education 2006
2. Jose A.Ramalho – Learn ORACLE 8i BPB Publications 2003

Books for Reference:

1. “Oracle 9i The complete reference“, Kevin Loney and George Koch, Tata McGraw Hill, 2004.
2. “Database Management Systems”, Ramakrishnan and Gehrke, Mc Graw Hill, Third Edition, 2003.
3. “Oracle 9i PL/SQL Programming “Scott Urman, Oracle Press, Tata Mc Graw Hill, 2002.

