

UNIT I

Introduction to DBMS, Introduction to RDBMS, E.F.Codd's 12 Rules , Importance of E.R. Diagram in Relational DBMS, Normalization, Introduction to SQL, SQL Commands and Data types , Introduction to SQL*Plus, SQL*Plus formatting commands, Operator and Expression, SQL v/s SQL*Plus

UNIT II

Data Type , Creating Databases, Creating , Altering & Dropping tables ,Data Manipulation Commands, Different type of constraints, SELECT statement with WHERE, GROUP BY and HAVING, ORDER BY, DISTINCT, Special operator like IN, ANY, ALL, BETWEEN, EXISTS, LIKE ,Join, subquery, minus, intersect, union , Built in functions, Numeric Function, Character Function ,Date Function, Aggregate function

UNIT III

Data Control and Transaction Control Command : Creating user & role, Grant, Revoke command, What is transaction? ,Starting and Ending of Transaction Commit, Rollback, Savepoint, Concurrency control using lock : What Are Locks?, Locking Issues, Lost Updates, Pessimistic Locking, Optimistic Locking, Blocking, Deadlocks, Lock Escalation, Lock Types, DML Locks, DDL Locks, Latches, Manual Locking and User-Defined Locks

UNIT IV

Introduction to PL/SQL : SQL v/s PL/SQL, PL/SQL Block Structure, Language construct of PL/SQL (Variables, Basic and Composite Data type, Conditions looping etc.), %TYPE and %ROWTYPE, Using Cursor(Implicit, Explicit) ,Exception Handling , Advanced PL/SQL : Creating and Using Procedure, Functions, Package, Triggers, Creating Objects, Object in Database-Table ,PL/SQL Tables, Nested Tables, Varrays

UNIT V

Backup & Recovery: Backup & Recovery, Types of Backups, Control File Backups, Redo Log File Backups, Cold Backups, Hot Backups, Net 8 : What is Net 8 ? , Why use Net 8 ? , Net 8 Features , Listener Dispatcher

Practical

1. Installation of RDBMS Server
2. Administration of a Relational Database
3. Create, Backup and Restore Database.
4. Create Database objects.
5. Advance Query.
6. System Stored Procedures
7. Database and Index Maintenance.
8. Securing an RDBMS server.
9. Database Availability, Data Mirroring.
10. How to use Replication.

Reference Books

1. Database System Concepts, Silberschatz, Korth and Sudarshan.
2. Date, Christopher J., *An Introduction to Database Systems* (8th ed.). Addison Wesley.
3. RDBMS Using Oracle – Bharat & Co. [ISBN No. : 978-93-81786-38-3]
4. SQL,PL/SQL The programming - Lang.Of Oracle Ivan Bayross - BPB
5. Using Oracle 8i - Page, Hughes - QUE & PHI Publications
6. Oracle 8I The Complete Reference - George Koch, Kevin Loney - Oracle Press and Tata MacGraw-Hill