

Database Management Systems

Unit-I:

1. Define database and DBMS.
What are the advantages and limitations of DBMS.
2. Explain Three-Level ANSI-SPARC Architecture
3. Explain the Functions of DBMS.
4. What are the Components of DBMS environment.
5. Explain Relational Model and various concepts around Relational Model.
6. Explain the various operators of Relational Algebra

Unit-II:

1. Explain DDL, DML, TCL and DCL Commands.
2. Explain various constraints in SQL with examples.
3. What is a View? How it is different from Table.
4. Explain various types of Joins in SQL.
5. Explain different types of privileges in SQL.
6. Define Cursor with an example. (PL/SQL)
7. Define Procedures and Functions in PL/SQL.
8. Explain various Control statements in PL/SQL (various if stat., loops)
9. Explain Packages with an example. (PL/SQL)
10. Explain Triggers in PL/SQL.

Unit-II:

1. Explain E-R Model.
(Define various terms and E-R diagram representation)
2. Explain Generalization, Specialization & Aggregation.
3. Explain various dependencies meant for Normalization.
4. Explain the process of Normalization.
(1NF, 2NF, 3NF and BCNF).
5. Explain Database Design Methodology.

Unit-IV:

1. Define Transaction and its properties.
2. Define Concurrency Control and explain ^{its} various methods.
3. Explain the process of Deadlock.
4. Explain various recovery techniques provided by DBMS.
5. Define Database Security. What are the various Computer-Based Controls.
6. Explain RAID tools.