

Lesson Plan 2025-26

Name of the Assistant Professor: Dr. Arun Kumar

Class and Section: B.Sc. Computer Science Sem-V

Subject: DBMS

1 22 July-25-14Aug 25	UNIT-1 Basic Concepts-Data, Information, Records and files. Traditional file-based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach, Database Management System (DBMS), Components of DBMS Environment, DBMS Functions, Advantages and Disadvantages of DBMS. Classification of Database Management System. Roles in the Database Environment Data and Database Administrator.
2 18 Aug 25 - 06 Sep-25	UNIT -II Centralized and Client Server architecture to DBMS. Database System Architecture - Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances. Data Independence: Logical and Physical Data Independence. Data Models: Records-based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Hierarchical, network and Relational model
3 08 Sep 25 - 03 Oct-25	UNIT -III Entity-Relationship Model Entity Types, Entity Sets, Attributes and keys, Relationship, relationship sets, Role name & recursive relationship and structural constraints, Conceptual design using E-R Diagrams. Relational Data Model:-Introduction, Properties of Relations, Keys, Integrity Constraints over Relations Views. Relational Database Design: Functional Dependencies, Normalization: 1 to 3rd Normal Form, BCNF, Lossless Join and Dependency preserving decomposition.
4 04 Oct 25 - 04 Nov-25 _____	UNIT-IV SQL: Types & components of SQL, Data Definition and data types, Data definition commands, Data manipulation commands, Data Control Commands Specifying Constraints (Primary Constraint. Foreign key, Unique, Not Null) in SQL, Schema, Basic Queries in SQL, Insert, Delete and Update operations. In-built Date String functions. Commit, Rollback, save points. Views:

06 Nov 25- 24 Nov 2025	Introduction, Advantages of creating views, Features Destroying/ Altering table & Views. Revision and Test
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