GOVT. COLLEGE FOR GIRLS PADHA(KARNAL)
LESSON PLAN FOR 4th SEM (NEP)

NAME OF TEACHER- Ms.Deepika

CLASS-B.A. with CS

SUB.- Data Management with DBMS

Course Code- B23-CSE-401

WEEKS	TOPICS COVERED
WEEK 1	Data, Information, Records, Files, Schema and Instance etc. Limitations of File-Based Approach, Characteristics of Database Approach, Database Management System (DBMS)
WEEK 2	DBMS Functions and Components, Database Interfaces, Advantages and Disadvantages of DBMS.
WEEK 3	Data and Database Administrator, Role and Responsibilities of Database Administrator, Database Designers, Application Developers etc. Database System Architecture: 1-Tier, 2-Tier & Three Levels of Architecture.
WEEK 4	External, Conceptual and Internal Levels, Schemas, Mappings and Instances, Data Independence – Logical and Physical Data Independence
WEEK 5	Hierarchical, Network, and Relational Data Models.
WEEK 6	Entity-Relationship Model: Entity, Entity Sets, Entity Type, Attributes.
WEEK 7	Type of Attributes, Keys, Integrity Constraints, Designing of ER Diagram, Symbolic Notations for Designing, ER Diagram.
WEEK 8	TEST-1
WEEK 9	SQL: Meaning, Purpose, and Need of SQL, Data Types, SQL Components: DDL, DML, DCL and DQL.
WEEK 10	Basic Queries, Join Operations and Sub-queries, Views, Specifying Indexes. Constraints and its Implementation in SQL.
WEEK 11	Relational Algebra: Basic Operations: Select, Project, Join, Union, Intersection, Difference, and Cartesian Product, etc.
WEEK 12	Relational Calculus: Tuple Relational and Domain Relational Calculus. Relational Algebra Vs. Relational Calculus.
WEEK 13	Relational Model: Functional Dependency, Characteristics, Inference Rules for Functional Dependency, Types of Functional Dependency.
WEEK 14	Normalization: Benefits and Need of Normalization, Normal Forms Based on Primary Keys- (1NF, 2NF, 3NF, BCNF).
WEEK 15	Multi-valued Dependencies, 4 NF, Join dependencies,
WEEK 16	5 NF, Domain Key Normal Form.
WEEK 17	REVISION.