

Panipat Institute of Engineering & Technology

Department of CSE-AI&DS

LESSON PLAN

Subject: Data Base Management Systems

Subject code: PC-CS-AIDS- 210A

Session: Jan.-June 2023-24

Semester: 4TH

S.No	Topic	CO Covered	Assignment No.	Teaching Methodology
1	Introduction: Concept & Overview of DBMS, Advantages of DBMS over file processing system	CO1	Assignment-1	Board/PPT
2	Database Languages, Responsibilities of Database Administrator	CO1		Board/PPT
3	Database Users	CO1		Board/PPT
4	Three Schema architecture of DBMS	CO1		Board/PPT
5	Data Independence, Data Models	CO1		Board/PPT
6	Entity-Relationship Model: Basic concepts	CO1		Board/PPT
7	Mapping Constraints, Keys, Sets	CO1		Board/PPT
8	Entity-Relationship Diagram, Weak Entity	CO1		Board/PPT
9	Extended E-R features: Specialization	CO1		Board/PPT
10	Extended E-R features: Generalization	CO1		Board/PPT
11	Revision of Unit-1	CO1		Flip Learning
12	The Relational Data Model & Algebra	CO2	Assignment-2	Board/PPT
13	Relational Model: Structure of relational Databases	CO2		Board/PPT
14	Relational Algebra & various operations (Set operation, select, project, joins, division)	CO2		Board/PPT
15	Relational Calculus: Domain, Tuple.	CO2		Board/PPT
16	Integrity Constraints & Introduction to SQL:- Domain Constraints, Referential Integrity Constraints	CO2		Board/PPT
17	Basic Structure & Concept of DDL, DML, DCL,	CO2		Board/PPT
18	Aggregate Functions, Null Values	CO2		Board/PPT
19	Introduction to views, creating, modifying and deleting views.	CO2		Board/PPT
20	Revision of Unit-2	CO2		Flip Learning

21	Relational Database Design: Functional Dependency,	CO3	Assignment-3	Board/PPT
22	Different anomalies in designing a Database	CO3		Board/PPT
23	Normalization– 1NF, 2NF	CO3		Board/PPT
24	Normalization–3NF	CO3		Board/PPT
25	Boyce-CODD Normal Form	CO3		Board/PPT
26	Normalization using multi-valued dependencies	CO3		Board/PPT
27	Normalization– 4NF, 5NF.	CO3		Board/PPT
28	Revision of Unit-3	CO3		Flip Learning
29	Transaction Processing Concept: Introduction to transaction processing, transaction model properties,	CO4	Assignment-4	Board/PPT
30	Serializability:-Serial, non-serial and Serializable Schedules	CO4		Board/PPT
31	Conflict Serializability.	CO4		Board/PPT
32	Concurrency Control: Need of concurrency control,	CO4		Board/PPT
33	Different concurrency control Techniques	CO4		Board/PPT
34	Locking based, timestamps based technique.	CO4		Board/PPT
35	Deadlock handling and Recovery Techniques:- Deferred update/ immediate update,	CO4		Board/PPT
36	Shadow paging.	CO4		Board/PPT
37	Revision of Unit-4	CO4		Flip Learning