LESSON PLAN (2025-26)

DATABASE MANAGEMENT SYSTEM

SEMESTER IV

COMPUTER SCIENCE ENGINEERING

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LECTURER, COMPUTER SCIENCE

Lecture Plan No.	Unit No.	Topic to be covered
1	1	1.1 Need of Database system 1.2 Advantages and Disadvantages of DBMS
2-3	1	1.3 Levels of data abstractions 1.3.1 Logical Level 1.3.2 Physical level 1.3.3 view level
4-5	1	1.4 Data independence 1.5 An architecture of DBMS 1.5.1 Database users 1.5.2 Roles of DBA
6	1	1.6 Applications of DBMS
7-8	2	2.1 schema and instance 2.2 Types of data model 2.2.1 Relational data model 2.2.2 Network data model 2.2.3 Hierarchical data model
9.-10	2	2.3 introduction of ER-Model 2.4 Component of ER Model 2.4.1 Entity 2.4.2 Relationship 2.4.3 Attributes
11	2	2.5 Types of relationship 2.6 ER Notatons
13	3	3.1 Introduction to SQL 3.2 SQL data types
14-15	3	3.3 SQL commands 3.3.1 DDL Commands
16	3	3.3.2 DML Commands
17	3	3.3.3 TCL Commands
18	3	3.3.4 DCL Commands 3.3.5 DQL Commands
19	3	3.4 SQL Operators
20	3	3.5 Constraints 3.5.2 primary key constraints 3.5.3 Foreign key constraints
21	4	4.1 Group functions, Group by,having and order by clause
22	4	4.2 Join operations 4.2.1 Inner Join 4.2.2 Outer Join 4.3 Nested query
23	4	4.3.1 Correlated Query 4.3.2 Uncorrelated Query
24	4	4.4 Math functions

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25-26	5	5.1 Introduction of functional dependency 5.1.1 trivial and nontrivial dependencies 5.1.2 inference rules
27	5	5.1.3 Closure of a set of dependencies 5.2 closure of a set attributes 5.3 types of keys
28-30	5	5.4 Normalization 5.5 Normal Forms

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