

# NM Institute Of Engineering and Technology, Bhubaneswar

## DEPARTMENT:CSE

LESSON PLAN: Academic Year 2023-24 (Even Semester)

COURSE: DIPLOMA

SEMESTER: 4th

**Subject/Code: DATABASE MANAGEMENT SYSTEM**

**Faculty Name: Swarnalata Rath**

Sl. No.	Name of the Topic to Cover	Text Book	Teaching Method	Course Progress	Remark
1	Purpose of database Systems	T1	P		
2	Explain Data abstraction	T3	G		
3	Database users	T2	P		
4	Data definition language	T2	G		
5	Data Dictionary	T2	G		
6	Revision	T3	G		
7	Data independence	T2	P		
8	Entity relationship models	T1	G		
9	Entity sets and Relationship sets	T1	G		
10	Explain Attributes	T3	P		
11	Mapping constraints	T1	G		
12	E-R Diagram	T2	P		
13	Relational model, Hierarchical model,	T3	G		
14	Network model	T2	G		
15	Quiz Test	T2	G		
16	Relational algebra	T1	G		
17	Different set operators with examples	T3	P		
18	Select and project operators with example	T1	G		
19	join operation with example	T3	G		
20	Question answer discussion	T2	G		
21	Functional Dependencies	T3	G		
22	Functional Dependencies contd...	T2	P		
23	Lossless join	T3	G		
24	Rules(Armstrong's axioms)	T2	G		
25	Importance of normalization	T1	G		
26	First and Second normal form	T1	G		
27	Third normal form	T2	P		
28	Explain BCNF	T2	P		
29	Revision	T1	G		
30	Elementary idea of Query language	T3	G		
31	Queries in SQL	T2	G		

32	Queries in SQL contd..	T1	G		
33	Queries in SQL contd..	T3	G		
34	Queries in SQL contd..	T3	P		
35	Simple queries to create, update, insert in SQL	T2	P		
36	Revision	T1	G		
37	Basic Idea about transaction processing	T3	G		
38	Transaction & system concept	T3	G		
39	Transaction & system concept contd...	T3	P		
40	Desirable properties of transaction	T2	P		
41	Schedules and Types of Schedules	T1	G		
42	Recoverability	T2	G		
43	Revision	T3	G		
44	Question answer discussion	T1	G		
45	Basic concepts of Concurrency Control	T2	P		
46	Locks and its types	T1	P		
47	Dead Lock	T3	G		
48	Dead Lock contd...	T3	P		
49	Live Lock	T2	P		
50	Serializability (only fundamentals)	T1	G		
51	Revision	T2	P		
52	Quiz Test	T1	P		
53	Authorization	T2	G		
54	views	T1	P		
55	Security constraints	T2	P		
56	Integrity Constraints	T1	G		
57	Integrity Constraints contd..	T3	P		
58	Discuss Encryption	T1	P		
59	Discussion of previous year questions	T1	G		
60	Discussion of previous year questions	T2	G		
			<b>Method of Teaching</b>		
			<b>G: Green Board Teaching</b>		
			<b>P: Power Point Teaching</b>		
<b>Faculty Signature</b>					
<b>At the end of this course, students will be able to:</b>					
• Understand the database concepts, their benefits and advantages• Understand the Database architecture					
• Understand the concepts of E-R diagrams & E-R modeling					
• Understand relational algebra• Comprehend the different aspects of SQL					
• Understand the concepts of normalization					
• Understand the concepts of transaction processing					
• Understand the techniques of concurrency control• Comprehend the concepts & techniques of backup & recovery of database					
<b>TEXT BOOKS:</b>					

S. Lipschutz Data Structure Schaum SeriesRog,Cornel Database System Concepts Cengage Learning		
Prateek Bhatia Data Base System Kalyani Publications		
A. Silberschatz, H.F. Korth Database System Concepts TMH Publication		