



**GANAPATI INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
**Mathasahi , Jagatpur , Cuttack - 754200, Odisha**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**LESSON PLAN**

Discipline: Computer Science and engineering	Semester: 4 <sup>th</sup>	Name of the Faculty: <b>Ananta B.B. Mohapatra</b>
Subject: Database Management System, Theory-4	No. of Days/week: 04	Start Date: <b>04.02.2025</b> End Date: <b>17.05.2025</b>

Week	Class Day	Theory Topics
1st	1st	Purpose of database Systems
	2nd	Explain Data abstraction
	3rd	Database users
	4th	Data definition language
2nd	1st	Data Dictionary
	2nd	Revision
	3rd	Data independence
	4th	Entity relationship models
3rd	1st	Entity sets and Relationship sets
	2nd	Explain Attributes
	3rd	Mapping constraints
	4th	E-R Diagram
4th	1st	Relational model, Hierarchical model,
	2nd	Network model
	3rd	Quiz Test
	4th	Relational algebra
5th	1st	Different set operators with examples
	2nd	Select and project operators with example
	3rd	Join operation with example
	4th	Question answer discussion
6th	1st	Functional Dependencies
	2nd	Functional Dependencies contd...
	3rd	Lossless join
	4th	Rules (Armstrong's axioms)
7th	1st	Importance of normalization
	2nd	First and Second normal form
	3rd	Third normal form
	4th	Explain BCNF

8th	1st	Revision
	2nd	ElementaryideaofQuerylanguage
	3rd	QueriesinSQL
	4th	QueriesinSQL contd..
9th	1st	QueriesinSQL contd..
	2nd	QueriesinSQL contd..
	3rd	Simplequeriescreate,update,insertinSQL
	4th	Revision
10th	1st	BasicIdeaabouttransactionprocessing
	2nd	Transaction&systemconcept
	3rd	Transaction&systemconceptcontd...
	4th	Desirablepropertiesoftransaction
11th	1st	SchedulesandTypesofSchedules
	2nd	Recoverability
	3rd	Revision
	4th	Questionanswer discussion
12th	1st	BasicconceptsofConcurrencyControl
	2nd	Locksanditstypes
	3rd	DeadLock
	4th	DeadLockcontd...
13th	1st	Live Lock
	2nd	Serializability(onlyfundamentals)
	3rd	Revision
	4th	QuizTest
14th	1st	Authorization
	2nd	views
	3rd	Securityconstraints
	4th	IntegrityConstraints
15th	1st	IntegrityConstraintscontd..
	2nd	DiscussEncryption
	3rd	Discussionofpreviousyearquestions
	4th	Discussionofpreviousyearquestions

A.B.B.  
29.1.2025

Sign Of Faculty

S.R. Pathan  
29.01.25  
Sign Of Sr. Lect.  
Dept. of Computer Science & Engg.

29.1.25  
Sign Of Principal