CHENNAI INSTITUTE OF TECHNOLOGY (Autonomous)	CHENNAI INSTITUTE OF TECHNOLOGY (Autonomous) Sarathy Nagar, Pudupedu, Chennai– 600 069. Internal Assessment – I		
Date	**22-02-2025**	**Max. Marks**	**50 Marks**
Subject Code/Name	**CS4203 – Database Management Systems**	**Time**	**1hr 30mins**
Branch	**Common to CSE, IT**	**Year/Semester**	**I/II**

Co. No	Course Objectives
1	To learn the fundamentals of data models and to represent a database system using ER diagrams.
2	To study SQL queries and database programming.
3	To learn the techniques of normalization and functional dependencies.
4	To understand the fundamental concepts of transaction processing- concurrency control techniques and recovery procedures.
5	To have an introductory knowledge about the Storage and Query processing Techniques.

At the end of course the students can able to

Co. No	Course Outcomes	RBT Level
1	Classify the database applications based on size and complexity	L3
2	Implement SQL queries and database programming	L3
3	Normalize the database and identify the functional dependencies	L3
4	Implement the concept of transaction processing, concurrency control and recovery management	L3
5	Process queries to extract data from a database	L3

Q. No	Part-A (2 X 5 = 10 Marks) (Answer all the questions)	CO	RBT	Marks
1	What are the four main characteristics that differentiate the database approach from the file-processing approach?	CO1	L2	2
2	Differentiate two tier and three tier Architecture.	CO1	L2	2
3	How primary Key is represented in E-R Model? Give Example.	CO1	L2	2
4	State the design issues of E R diagram	CO1	L1	2
5	What do you mean by Data warehouse? How it differs from database.	CO1	L2	2

Q. No	Part- B (2 X 16 = 32 Marks), (1 X 8 = 8 Marks) (Answer all the questions)	CO	RBT	Marks
11 A	Describe the different users and the ways to interact with DBMS.	CO1	L2	8
	Define Data Abstraction and discuss levels of Abstraction?	CO1	L2	8
	(OR)			

11 B	Discuss in detail about database languages with illustrations.	CO1	L2	10
	Write short note on Data Models.	CO1	L2	6
12 A	How Entity, Relationship and Attributes are represented in E-R Modelling? Explain various types of Attributes in detail.	CO1	L2	10
	Explain in detail about the Cardinality of a Relationship of E-R model with suitable example.	CO1	L2	6
	(OR)			
12 B	What are roles and responsibilities of Database user and Database Administrator?	CO1	L2	6
	Draw E-R diagram for supplier who supplies different parts. The parts are used in different projects. Explain the mapping cardinality used. Assume suitable attributes.	CO1	L3	10
13	Discuss the various design issues associated with E-R Model with illustrations.	CO1	L2	8