



**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 | 1 hr 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 |