

Code No.: R22IT403PC

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**CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS**

II–B. TECH–II–Semester End Examinations (Regular) -July- 2024

DATABASE MANAGEMENT SYSTEM

(Common for IT, CSD, CSM)

[Time: 3 Hours]

[Max. Marks: 60]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(10 Marks)

1. a) Draw the notations of ER-Diagram. [1M]
- b) List the database applications. [1M]
- c) State about SELECT operation in Relational algebra. [1M]
- d) Define Null Values and Define tuple variable with its syntax. [1M]
- e) Discuss normalization. [1M]
- f) Illustrate functional dependency with example. [1M]
- g) Discuss different phases of transaction. [1M]
- h) Explain about different types of locks. [1M]
- i) Explain Clustered Indexes. [1M]
- j) Define Indexed Sequential Access Method. [1M]

PART-B

(50 Marks)

2. Compare and Contrast file Systems with database systems. [10M]
- OR**
3. Explain different types of database users and write the functions of DBA. [10M]
4. Write about views and updates on views. [10M]
- OR**
5. Discuss about the operators renaming, joins, division. [10M]
6. Define normalization? Explain 1NF, 2NF, 3NF Normal forms. [10M]
- OR**
7. Explain about Schema refinement in Database design. [10M]
8. Illustrate Concurrent execution of transaction with examples. [10M]
- OR**
9. Explain Check Point and ARIES Advanced Recovery Techniques. [10M]
10. Compare dense indexing and cluster indexing techniques. [10M]
- OR**
11. Compare and Contrast Extendible Hashing with Linear Hashing. [10M]
