

Code No.: AI7210E

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CMR ENGINEERING COLLEGE : HYDERABAD
UGC AUTONOMOUS
IV-B.TECH-I-Semester End Examinations (Supply) – April - 2024
DATABASE MANAGEMENT SYSTEMS
(MECH)

[Time: 3 Hours]

[Max. Marks: 70]

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

Part A is compulsory which carries 20 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

(20 Marks)

1. a) Define Data Independence. [2M]
- b) What is an entity relationship model? [2M]
- c) Explain about relational algebra? [2M]
- d) Define View. [2M]
- e) Define trigger and its operations? [2M]
- f) What is decomposition? [2M]
- g) List the properties of transaction [2M]
- h) Explain about multiple granularity? [2M]
- i) What is an index? Give an example [2M]
- j) Define Clustered Indexes? [2M]

PART-B

(50 Marks)

2. Define data abstraction and discuss levels of abstraction? [10M]
- OR**
3. Explain ER diagram with example. [10M]
4. Explain about the types of Integrity Constraints. [10M]
- OR**
5. Explain about Relational algebra in detail. [10M]
6. Explain about Nested Queries with an example. [10M]
- OR**
7. Explain first, second, third and fourth normal form and BCNF with example. [10M]
8. Discuss Serializability in detail. [10M]
- OR**
9. Describe Times tamp based locking protocols? [10M]
10. Explain in detail about Indexed Sequential Access Methods (ISAM). [10M]
- OR**
11. Explain in detail about Hash based indexing and Tree based indexing [10M]
