

Code No.: CS301PC

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CMR ENGINEERING COLLEGE: : HYDERABAD

UGC AUTONOMOUS

II-B.TECH-I-Semester End Examinations (Supply) – February- 2024

DATABASE MANAGEMENT SYSTEMS

(Common to CSE, CSC & CSD)

[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 the terms i) Entity ii) Entity set iii) weak entity set iv) strong entity set? [2M]
- b) Define instance, schema and data abstraction ? [2M]
- c) Explain different types of keys in DBMS? [2M]
- d) Define VIEW? [2M]
- e) Define Second Normal Form? [2M]
- f) Define redundancy? [2M]
- g) Demonstrate the implementation of Isolation? [2M]
- h) Define a Transaction? List the properties of transaction [2M]
- i) Define Tree Indexing? [2M]
- j) Explain about RAID [2M]

PART-B

(50 Marks)

2. Explain briefly about Data models? [10M]
- OR**
3. Describe the Structure of DBMS? [10M]
4. Write briefly about logical database design? [10M]
- OR**
5. Discuss about the operators SELECT, PROJECT, UNION? [10M]
6. Define decomposition? How does it address redundancy .Give an example? [10M]
- OR**
7. Illustrate Multivalued dependencies and Fourth normal form with example? [10M]
8. Explain ACID properties and Illustrate them through examples? [10M]
- OR**
9. Explain different types of Advanced Recovery Techniques? [10M]
10. Write in detail about Hash based Indexing and Tree based Indexing? [10M]
- OR**
11. Illustrate insertion and deletion of an element in B+ trees with example? [10M]
