

Unit IV

7. (a) What are the advantages of object relational databases as compared to a relational database ? 7
- (b) What is Distributed Database ? Discuss various distribution schemes. 8
8. What is Data Mining ? Discuss its applications. 15

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B.Tech. EXAMINATION, 2022

(Fifth Semester)

(C-Scheme) (Main & Re-appear)

(CSE)

CSE303C

DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) What is the role of DBA in database ? 5
(b) What is data abstraction ? What are its types ? 5
(c) What are the disadvantages of DBMS approach ? 5
2. (a) What is discriminator in E-R Model ? How is it helpful ? Explain with an example. 5
(b) Compare generalization with specialization with examples of both. 5
(c) Discuss different types of relationships in E-R modelling. 5

Unit II

3. (a) What are the set operators available in relational algebra ? Explain set compatibility conditions for these operator. Also give examples for each operator. 5

- (b) Discuss division operator in relational algebra with the help of an example. Also, show step by step how the results are obtained in divisions operation. 5
- (c) Write Armstrong's Axioms. What is their usage ? 5
4. (a) Compare BCNF with 3NF. 5
(b) What are advantages of normalization ? 5
(c) Write SQL commands to create Primary Key and Foreign Key. Also discuss usage of foreign key in DB Design. 5

Unit III

5. (a) Explain the working of 2PL in detail. 8
(b) What is Deadlock ? What are the necessary conditions for deadlock ? How to test for deadlock ? 7
6. Discuss Shadow paging recovery technique in detail. 15