

Roll No.

Total Pages : 02

BT-3/D-20

43082

DATA BASE MANAGEMENT SYSTEM

CSE-205N/IT-201N

Time : Three Hours]

[Maximum Marks : 75

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

Unit I

1. What do you mean by mapping ? Discuss the role of mapping in 3 Layer architecture of DBMS as proposed by ANSI-SPARC. How does this architecture achieve data independence ? 15
2. (i) Discuss the role of ER diagrams in DBMS. Explain weak entity set with example. 8
(ii) Discuss various languages used in DBMS. 7

Unit II

3. (i) Explain select, project, union, product and join operations of relational algebra with example. 8
(ii) What do you mean by views ? How are views created and dropped ? 7

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4. Write short notes on the following : 3×5=15

- (i) Nested sub-queries
- (ii) Assertions
- (iii) Stored procedures.

Unit III

5. What is normalization ? Discuss the need of normalization. Explain the normal forms based on full and partial functional dependency and multi-values dependency. 15
6. (i) Differentiate statistics and cost based optimization with example. 7
(ii) Discuss various steps involved in recovery management. 8

Unit IV

7. Write short notes on the following : 2×7.5=15
 - (i) Commit and Lock
 - (ii) Locking system with several lock modes.
8. (i) Discuss the strategies to protect media failures. 8
(ii) What are serial and serializable schedules ? Give example. 7

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