

Roll No.

Total Pages : 2

BT-3/D-21

43082

DATA BASE MANAGEMENT SYSTEM

Paper : CSE-205N/IT-201N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt any *five* questions by selecting at least *one* question from each unit.

UNIT-I

1. Explain DBMS architecture in detail. (15)
2. (i) Who is DBA. Discuss the responsibilities of DBA.(7)
(ii) With example explain various mapping cardinalities, total and partial participation constraint in ER Model. (8)

UNIT-II

3. (i) What are Aggregate functions in SQL. List any three aggregates functions. (8)
(ii) What are triggers? Write the syntax to create a trigger for each row. (7)
4. Write short notes on : DDL, DML, DCL. (15)

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UNIT-III

5. What is normalization? Discuss the role of normalization. Explain 3NF, 4NF, 5NF with suitable example. (15)
6. (i) Discuss the main heuristic that are applied during query optimization to improve the processing of the query. (7)
- (ii) Consider Schedule S with transaction T1 and T2. T1 transfer Rs. 150 from account A to C and T2 adds Rs. 50 into A. Prepare concurrent schedule with 2 phases locking protocol. (8)

UNIT-IV

7. (i) Write short note on Undo and Redo Logging. (7)
- (ii) What is deadlock and how is it different from standard block situation. (8)
8. (i) Differentiate recoverability and serializability. (7)
- (ii) Write a detailed note on concurrency control by timestamps. (8)
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