

Roll No. ....

Exam Code : J-19

Subject Code—0378

**M.C.A. (Second Year) EXAMINATION**

(5 Year Integrated Course) (D.E.)

(For Batch 2009 Onwards Main & Reappear)

DATABASE MANAGEMENT SYSTEM

MCA-202

*Time : 3 Hours*

*Maximum Marks : 70*

**Section A**

**Note :** Attempt any *Seven* questions. **7×5=35**

1. Explain any *five* advantages of a Database.
2. Differentiate information and knowledge.
3. Explain database type in brief.
4. Why normalization is importance in a database ?

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**P.T.O.**

5. Describe the concept of Recovery in a Database.
6. Explain Hierarchical database briefly.
7. What is Query Optimization ?
8. Explain Time Stamp Ordering.
9. Describe Replication in brief.
10. Explain the symbols which are used in ER Diagram. 7×5

### Section B

**Note :** Attempt all the questions.

11. Explain Two Phase Locking Protocol in detail.

*Or*

Explain the terms below :

- (a) Network Database
- (b) Tables and Views. 12

12. What is a Query in Relation Database ? Explain different steps of Query execution.

*Or*

Explain 1st NF and 3rd NF in detail with suitable examples. 12

13. What is a Failure ? Explain its classification in detail.

*Or*

Explain structure of a Distributed Database System. 11