VI Semester B.E. (CSE/ISE) Degree Examination, January/February 2014
(Y2K6 Scheme)
CI – 6.2 : DATABASE MANAGEMENT SYSTEM

Time : 3 Hours   Max. Marks : 100

Instruction : *Answer* **any five** *questions, selecting atleast* **two** *from* **each** *Part.*

PART – A

1. a) Explain the architecture of DBMS with a neat diagram.   **8**

   b) Bring out the advantages and disadvantages of DBMS over conventional file
      system.   **7**

   c) Discuss the classification of DBMS.   **5**

2. a) What are the different types of attributes ? Explain with examples.   **10**

   b) Explain the ER-to-relational mapping algorithm with an example.   **10**

3. a) Write a note on the DML operations that can be performed on a relational
      model, along with the constraints that are violated with examples.   **8**

   b) Discuss the relational algebra aggregate functions with example.   **6**

   c) Explain SET theoretic operations.   **6**

4. a) Explain the following relational operations with example for each.
       i) SELECT
       ii) PROJECT
       iii) JOIN.   **10**

   b) What is a view in SQL, how is it defined ? Discuss the problems that may
      arise when one attempts to update a view.   **10**

P.T.O.

PART – B

5. a) State the informal design guidelines for relational schema design. Illustrate how violation of these guidelines may be harmful. **12**

   b) Define FD, explain 2NF and 3NF with an example. **8**

6. a) State and prove Armstrong's Inference rules. **10**

   b) Define multivalued dependencies and join dependencies with examples. **10**

7. a) With a diagram explain the oracle architecture. **10**

   b) Discuss the various features of Ms-Access. **5**

   c) Write a note on embedded SQL. **5**

8. Write notes on **any four** of the following : **20**

    i) Data warehousing

    ii) Spatial databases

    iii) Association rules

    iv) Mobile databases

    v) Digital libraries.

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