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II Semester B.C.A. Examination, Feb./March 2010 DBMS

Time: 3 Hours Max. Marks: 80

Instructions: 1) Answer all questions in Part A, 5 questions in Part B, and 3 questions in Part C.

- 2) Part A: Questions from 1 to 8 carry 1 mark and 9 to 14 carry 2 marks each.
- 3) Part **B**: **Each** question carries **6** marks.
- 4) Part C: Each question carries 10 marks.

PART – A

- 1. What is meant by foreign key?
- 2. What is purpose of metadata?
- 3. What is a view?
- 4. What is an attribute?
- 5. What is cardinality?
- 6. What do you mean by transaction processing?
- 7. What is equijoin and non equijoin?
- 8. What are domain constraints?
- 9. What is a referential integrity?
- 10. When do you say a relation R is first normal form?
- 11. How does the domain relational calculus differ from tuple relational calculus?
- 12. What is meant by normalization?
- 13. What is lossy decomposition?
- 14. What is SQL? What are the characteristics of SQL?

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PART - B

- 1. What are the advantages of relational approach?
- 2. Explain the levels of database with the help of suitable example.
- 3. List out the advantages of file management system.
- 4. Explain hash based indexing.
- 5. What is a normal form? List out all normal forms. Why normalization of data is necessary? Explain.
- 6. Discuss the fundamental operations of relational algebra.
- 7. What are constraints and triggers?
- 8. List out the various factors that are important in evaluating a DBMS system.

PART - C

- 1. Draw the ER diagram for the banking system.
- 2. Explain the 3 schema architecture of DBS. Why do we need mappings between different schema levels? How do different schema definition languages support this architecture?
- 3. What is query processing? What is query transaction? Define Merge Join.
- 4. Explain various DML commands with neat syntax.
- 5. Explain in detail any two data models with sample database.
