# BCA – 23

## 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 ?

**P.T.O.**

## 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.

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