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**BCA , MAY –2014**  
**DATABASE MANAGEMENT SYSTEM**  
**Paper Code (BC-402)**  
**Paper Id. [B0216]**

**Time: 03 Hours**

**Maximum Marks: 60**

**Instruction to Candidates:**

- 1) Section – A is **Compulsory**.
- 2) Attempt any **Four** questions from Section – B.

**Section – A**

**Q1)**

**(10 x 2 = 20)**

- a) What do you mean by Data Base Management System?
- b) Define Logical Data Independence.
- c) Describe Conceptual level in Three Schema Architecture.
- d) Explain various symbols used in ER Models.
- e) Explain the use of Network Model.
- f) What is Project operation in Relational algebra?
- g) What do you mean by Normalization?
- h) Define Integrity in DBMS.
- i) **Difference between Commit and Rollback.**
- j) What do you mean by distributed Data Base?

**Section – B**

**(4 x 10 = 40)**

**Q 2) a)** What do you mean by Data Base Administrator?

b) What are the Advantages of using DBMS?

**Q 3)** What do you mean by Data Model? Explain Network model in detail.

**Q 4)** What is Relational Algebra? Explain various Join operations with examples.

**Q 5)** Write note on the following:

- a) Relational Calculus
- b) Relational Model

**Q6)** What do you mean by Concurrency? Describe various Concurrency controls in a DBMS.

**Q7)** Discuss Design Techniques of database system. What are the advantages of each technique?

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