

Roll No.....  
Total No. of Questions: [09]

Total No. of Printed Pages: [01]

**BCA (Semester – 4<sup>th</sup>)**  
**DATABASE MANAGEMENT SYSTEM**  
**Subject Code: BCAP1419**  
**Paper ID: [160119]**

**Time: 03 Hours**

**Maximum Marks: 60**

**Instruction for candidates:**

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

**Section – A**

**(2 marks each)**

- Q1. Attempt the following:
- a) List various Roles of DBA.
  - b) Define the term Super Key and Primary Key
  - c) Write Advantages of Relational Data Model.
  - d) Explain in brief about Aggregation
  - e) Define the term Decomposition.
  - f) Define fourth normal form.
  - g) What is Functional Dependency?
  - h) What are the advantages of using views in MySQL?
  - i) What is a cursor in MySQL? How do you declare a cursor in MySQL?
  - j) What is a transaction in MySQL? How do you start a transaction in MySQL?

**Section – B**

**(5 marks each)**

- Q2. Write a detailed note on Database Architecture.
- Q3. Explain in detail about extended ER diagrams.
- Q4. Explain Pitfalls in Relational Database Design.
- Q5. Explain various types of Operators in MySQL.
- Q6. Explain the concept of Grouping Data and Joining tables in MySQL.

**Section – C**

**(10 marks each)**

- Q7. Write a detailed note on Characteristics and advantages of DBMS.
- Q8. Explain in detail about Generalization and Specialization
- Q9. Explain First, Second and Third and BCNF Normal Forms with suitable examples