Roll No…….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

BCA (Semester – 4th)
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