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Total Pages: 3 Roll No.

BCA-09/DIT-05

Database Management System

Bachelor/Diploma in Computer Application (BCA/DIT)

3rd/2nd Semester Examination, 2023 (June)

Time: 2 Hours [Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION-A

(Long Answer Type Questions)

Note: Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 19 = 38)$

- 1. Explain various types of joins with an example.
- **2.** Explain DDL, DML, and DCL with an example.
- **3.** (i) What is a transaction? Explain its four important properties.
 - (ii) What is functional dependency? Explain its usage in database design.
- **4.** Explain specialization and generalization feature of ER diagram with example.
- **5.** What is the need of normalization? Describe 2NF, 3NF and BCNF with examples.

SECTION-B

(Short Answer Type Questions)

- **Note:** Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)
- **1.** Differentiate between physical and logical data independence.
- 2. Differentiate between Weak and Strong Entity Set.

- **3.** What is Referential Integrity? Explain with example.
- **4.** Differentiate between prime attribute and Nor-prime attribute with example.
- **5.** Describe Database Architecture.
- **6.** What are different types of DBMS?
- 7. Describe the important features of ER data model in detail.
- **8.** What are the responsibilities of a DBA?