Roll No .....

## MCADD-305

## M.C.A. (Integrated), III Semester

Examination, June 2023

## **Database Management System**

Time: Three Hours

Maximum Marks: 70

- Note: i) Attempt any five questions.
  - ii) All questions carry equal marks.
- 1. a) Differentiate between Database approach v/s Traditional file accessing approach.
  - b) Explain the concepts of Generalization and Aggregation with appropriate examples.
- 2. a) What is schema and subschema? Explain these two concepts through examples.
  - b) What is data dictionary? What it stores? How can this information be useful in DBMS?
- 3. a) Explain the Select and Update commands with syntax.
  - b) What are integrity constraints? Define the term primary key constraint and foreign key constraint. How are these constraints expressed in SQL?
- 4. a) What do you mean by the terms loss-less decomposition?
  - b) Explain natural join, outer join, full outer join, left outer join and join with examples.

- 5. a) Explain dangling Tuple. Is BCNF is a stronger normal form than 3NF. Mention reason.
  - b) What is a deadlock? Discuss strategies for preventing deadlock.
- 6. a) What is Cursor Management? Explain nested and parameterized cursors.
  - b) Discuss the basic concepts of transaction and write ACID properties.
- 7. a) How concurrency is performed? Explain the protocol that is used to maintain the concurrency concept.
  - b) Explain ACID property in detail.
- 8. Explain following term
  - i) Super key
  - ii) Flashback queries
  - iii) RDBMS
  - iv) Extensions

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