

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(IT)/MCA/PGDCA (Sem.-1)

RELATIONAL DATABASE MANAGEMENT SYSTEM

Subject Code : PGCA-1904

M.Code : 76974

Date of Examination : 17-01-2023

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C. have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying TEN marks each.**
4. **Select atleast TWO questions from SECTION - B & C.**

SECTION-A

1. Answer briefly :

- a) What are multivalued dependencies?
- b) What are the different types of database languages?
- c) What is the difference between the primary and unique key?
- d) What are specialty databases?
- e) What are the full forms of JDBC and SQU?
- f) What are the differences between DROP, TRUNCATE and DELETE commands?
- g) What is the meaning of an attribute in ER diagram?
- h) What are ACID properties in DBMS?
- i) What is the difference between embedded SQL and dynamic SQL?
- j) What is meant by query processing?

SECTION-B

2. Explain the concept of data models in DBMS and discuss in detail the three-schema architecture.
3. Discuss in detail:
 - a) Magnetic disks
 - b) Primary and Secondary indexes.
4. Explain the concept of transaction management in DBMS using a real-life example. Why is conflict serializability important?
5. Discuss various aggregate functions available in SQL. Also, throw some light on the concept of join expressions.

SECTION-C

6. Explain the following :
 - a) Schema
 - b) View
 - c) Instance
 - d) Null values
 - e) Foreign key.
7. Why normalization is required? Explain various normal forms available in DBMS in detail.
8. What are the features of a good relational design? Explain by citing instances.
9. Discuss various techniques available in DBMS to ensure database security.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.