

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

MCA (Sem.-1)

ADVANCED DATABASE MANAGEMENT SYSTEM

Subject Code : PGCA-1953

M.Code : 79038

Date of Examination : 22-05-2023

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) **Write short notes on :**
- a) Data Independence
 - b) Cardinality of Relation
 - c) Referential Integrity Constraints
 - d) Relational Calculus
 - e) Cartesian Product
 - f) Intra query parallelism
 - g) Distributed Database Storage
 - h) NoSQL Databases
 - i) Document Type Definition (DTD)
 - j) Distributed DBMS Commit Protocols.

SECTION-B

2. What is the purpose of database management system and its applications? Discuss in detail.
3. What is ER data model? Explain ER diagram with suitable example and their terminology.
4. What is the process of normalization? Explain type of normal forms and dependencies.
5. What is Concurrency? Discuss different concurrency control techniques.

SECTION-C

6. What are the types of parallel database? What is intra vs. inter parallelism?
7. What are the concepts of distributed databases? How queries are processed in DDBMS?
8. What is Big data and its types? Discuss open source NOSQL databases.
9. What are the types of XML databases? What is an XML schema type?

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