

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 07**

**B.Sc. (Artificial Intelligence & Machine Learning) (Sem.-3)**

# DATABASE MANAGEMENT SYSTEMS

**Subject Code : UGCA1922**

**M.Code : 90351**

**Date of Examination : 16-12-22**

**Time : 3 Hrs.**

**Max. Marks : 60**

### INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

## SECTION-A

1. **Write briefly :**
  - a. Components of DBMS
  - b. Parent child relationship in data models
  - c. DDL vs. DCL
  - d. Stored Procedure
  - e. SQL
  - f. Functional Dependency
  - g. First Normal Form
  - h. Referential Integrity
  - i. Database Security
  - j. Distributed Database.

## **SECTION-B**

2. Explain Three Layer Architecture of Database System.
3. What are data models and its types?
4. Explain relational calculus with examples.
5. What is Normalization? Explain its first three types.
6. Explain distributed databases and its design.
7. What are triggers and its types? Write the SQL code for Trigger using suitable example.

**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.**