### P-861

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## **MIT(CS)-402**

#### **Introduction to DBMS**

M.Sc. Cyber Security (MSCCS)

4th 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. Define Database Management System with suitable example. Also explain different components of DBMS.

- **2.** What are the merits and demerits of DBMS? Explain in details.
- **3.** Explain RDBMS. Also explain the process of database design.
- **4.** What are different types of Relationships? Explain with suitable examples.
- **5.** Explain the following keys with an example :
  - (a) Primary key.
  - (b) Foreign key.
  - (c) Candidate key.
  - (d) Super key.
  - (e) Alternate key.

### **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.** What do you mean by data independence?
- **2.** What are three types of Data Abstraction? Briefly discuss.

- **3.** What do you mean by join? What are different types of join?
- **4.** What is SQL? Explain different characteristics of SQL.
- 5. Explain DDL, TCL and DQL.
- **6.** What are different aggregate functions used in SQL?
- **7.** Explain in brief types of database recovery.
- **8.** Write SQL for the following:
  - (a) Create a table STUDENT with Roll No., Name, Branch, Marks Obtained.
  - (b) Display Roll No. and Name of students who have got marks between 60 and 80.