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**ND—18—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Sc. (First Year) (Second Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**(CBCS/Revised Pattern)**

**COMPUTER SCIENCE**

**(Database Management System)**

**(Tuesday, 5-12-2023)**

**Time : 10.00 a.m. to 1.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

*N.B. :— All questions are compulsory.*

1. Attempt any *five* of the following (3 marks each) : 15
- (a) Explain DDL in detail.
  - (b) Explain inner join with example.
  - (c) Explain where clause.
  - (d) Write down advantages of DBMS.
  - (e) Explain 1NF, 2NF in short.
  - (f) Explain 5 types of DBMS languages.
  - (g) Differentiate between primary key and foreign key.

P.T.O.

2. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain structure of DBMS.
  - (b) Explain DCL commands with example.
  - (c) Explain 3-level architecture of DBMS.
  - (d) What is data model ?
  - (e) Explain client-server system.
3. Attempt any *three* of the following (5 marks each) : 15
- (a) What is transaction server ?
  - (b) Explain distributed system with example.
  - (c) What is parallel database architecture ?
  - (d) Explain entity relationship model.
  - (e) Draw entity relationship diagram.
4. Attempt any *three* of the following (5 marks each) : 15
- (a) Define data types in SQL.
  - (b) Explain how to change table structure.
  - (c) Explain types of SQL functions.

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- (d) What are different types of constraints ?
- (e) Write query to perform the following task :
  - (i) Creating a table with 5 columns-student id, name, class, mobile no. and address
  - (ii) Insert 3 rows of data (any).

5. Write short notes on any *three* of the following (5 marks each) : 15

- (a) Creating view
- (b) Shared disk
- (c) Data server
- (d) DBMS user
- (e) Hierarchical database architecture.

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