

**B.SC(IT) SEMESTER - 3 (NEP-2020) Examination****OCT/NOV-2025****DBMS -1 (Major-7)****Time: 2:00 Hours****Marks:50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1 Answer the Followings (Any Two) (10)
- (1) Explain types of databases in detail.
  - (2) Explain Structure of DBMS.
  - (3) Explain E.F. Codd's 12 rules.
  - (4) Explain Network Data Model and its advantages.
- Que.2 Answer the Followings (Any Two) (10)
- (1) Explain First Normal Form (1NF) with an example.
  - (2) Define the Relational Model. Mention its key features.
  - (3) What is Relational Algebra? Explain operators with examples.
  - (4) What are data constraints? Explain with examples.
- Que.3 Answer the Followings (Any Two) (10)
- (1) Explain data types and operators in SQL.
  - (2) Explain DDL (Data Definition Language) commands with example.
  - (3) Explain DML (Data Manipulation Language) commands with example.
  - (4) What is SQL \*Plus? Explain key features of it.
- Que.4 Answer the Followings (Any Two) (10)
- (1) Explain Logical operators with example.
  - (2) Explain types of JOIN with example.
  - (3) Explain Numerical functions with example.
  - (4) Explain Character functions with example.
- Que.5 Answer the Followings (Any Two) (10)
- (1) Explain database schema with example.
  - (2) Explain Relationships and its types with example.
  - (3) Explain TCL (Transaction Control Language) command with example.
  - (4) Explain Aggregate function with example.

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