

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2022**

**DATABASE MANAGEMENT SYSTEM**

[Maximum Marks: **100**]

[Time: **3 Hours**]

**PART-A**

I. (Answer **all** questions in one or two sentences. Each question carries **2** marks)

1. What is data redundancy?
2. List the types of users who interact with Database.
3. Explain foreign key.
4. Explain LIKE, IN commands in SQL.
5. Explain Deletion anomaly. (5 x 2 = 10)

**PART-B**

II. (Answer **any five** of the following questions. Each question carries **6** marks)

1. Explain three schema architecture.
2. Explain component modules of DBMS.
3. Explain E R model with an example.
4. Describe Specialization and Generalization with an example.
5. Describe stored procedure with an example.
6. Explain Integrity constraints in SQL.
7. Explain advantages of Distributed Database System. (5 x 6 = 30)

**PART-C**

(Answer **one** full question from each Unit. Each full question carries **15** marks)

**UNIT – I**

- III. (a) Describe the duties of DBA. (7)  
(b) Describe Relational data model. (8)

**OR**

- IV. (a) Explain Three-tier architecture of Client/ Server model. (7)  
(b) Explain the advantages of DBMS. (8)

**UNIT – II**

- V. (a) Explain Super key, Candidate key, Alternate key. (6)  
(b) Explain Unary, Binary operations in relational algebra with example. (9)

**OR**

- VI. (a) Explain natural join, Outer joins. (8)  
(b) Describe UML. (7)

**UNIT- III**

- VII. (a) Explain Aggregate functions with example. (7)  
(b) Explain sub queries with example. (8)

**OR**

- VIII. (a) Explain trigger with example. (7)  
(b) Explain views, ODBC. (8)

**UNIT - IV**

- IX. (a) Explain Data warehouse architecture. (8)  
(b) Explain parallel database architecture. (7)

**OR**

- X. (a) Explain 1NF, 2NF, 3NF, BCNF. (8)  
(b) Explain knowledge discovery process in data mining. (7)

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