



Term Evaluation (Odd) Semester Examination September 2025

Roll no.....

Name of the Course: DIPLOMA (CSE)

Semester: III

Name of the Paper: Relational Database Management Systems

Paper Code: DTCS- 303

Time: 1.5 hours

Maximum Marks: 50

Note:

- (i) Answer all the questions by choosing any one of the sub-questions
- (ii) Each question carries 10 marks.

Q1.

(10 Marks)

- a. Explain the basic concepts of DBMS and discuss its advantages over the traditional file processing system. CO1

OR

- b. What is data abstraction? Explain the three levels of data abstraction with examples. CO2

Q2.

(10 Marks)

- a. Discuss the various database languages used in DBMS. Also, explain the concept of DATA INDEPENDENCE. CO1

OR

- b. Draw and explain the overall structure of a DBMS, mentioning its main components. CO2

Q3.

(10 Marks)

- a. What is an E-R diagram? Draw an E-R diagram for STUDENT MANAGEMENT SYSTEM. CO1

OR

- b. Describe Client-Server architecture in database systems with a neat diagram. CO2

Q4.

(10 Marks)

- a. In the relational model, define attributes and domains. Explain CANDIDATE KEY, PRIMARY KEY and FOREIGN KEY with examples. CO1

OR

- b. What are integrity constraints in a database? Explain domain constraint, entity integrity constraint, and ON DELETE CASCADE action with suitable examples. CO2

Q5.

(10 Marks)

- a. What is database security and authorization? Describe different methods to implement them. CO1

OR

- b. Explain Relational Algebra, Relational Calculus, and views in DBMS with examples. CO2