

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-III Computer Science & Engineering : WINTER: 2025
SUBJECT: DATABASE SYSTEMS

Day : Thursday
Date : 11/12/2025

W-29201-2025

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N. B.

- 1) All Questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Assume suitable data if **NECESSARY**.
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Q. 1 Explain advantages of DBMS over file processing systems in detail. (10)

OR

Q. 1 Explain data Independence with respect to DBMS (10)

Q. 2 How to convert ER Diagram into Table (Schema,) Explain with suitable example. (10)

OR

Q. 2 What is an E-R model? Explain different components of E-R model with the help of suitable diagrams. (10)

Q. 3 Explain normalization. Explain 1NF, 2NF, 3NF, BCNF with the help of suitable examples. (10)

OR

Q. 3 Explain Query Processing with Suitable Diagram. (10)

Q. 4 What are SQL Aggregate Functions? Explain with examples. (10)

OR

Q. 4 What is DDL, DML, DCL and TCL Commands in SQL? Explain each with Example. (10)

Q. 5 Write a note on Log based recovery technique in Transaction management. (10)

OR

Q. 5 Explain different Time Stamping Methods for Concurrency control with the help of an example (10)

Q. 6 What is a parallel database? Explain different advantages of parallel database. (10)

OR

Q. 6 Explain Centralized and Client Server Architecture in DBMS (10)

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