

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-III Computer Science & Engineering : WINTER : 2024
SUBJECT: DATABASE SYSTEMS

Day : Thursday
Date : 05/12/2024

W-29201-2024

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 data independence and view of data explain in details. (10)
- OR**
- Q. 1 Explain structure of DBMS in details. (10)
- Q. 2 State and explain various features of E-R models. (10)
- OR**
- Q. 2 Draw an Extended ER Diagram for Restaurant Management System. (10)
- Q. 3 What is Normalization? What are conditions are required for a relation to be in 1NF, 2NF, 3NF explain with examples. (10)
- OR**
- Q. 3 What is mean by functional dependencies? Discuss about Third normal form? (10)
- Q. 4 Explain what is SQL language? What are the different characteristics and advantages of SQL? (10)
- OR**
- Q. 4 Explain in detail Nested Queries? What is the stored procedures? (10)
- Q. 5 What is transaction? Explain the ACID properties of transaction? (10)
- OR**
- Q. 5 Explain in details about Timestamp-Based Protocols? (10)
- Q. 6 What are different architecture Design for parallel databases? Explain with suitable diagrams? (10)
- OR**
- Q. 6 Explain Database Architecture with suitable diagram? (10)

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