

BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem - III Computer Science & Engineering AI & ML : SUMMER : 2025
SUBJECT: DATABASE MANAGEMENT SYSTEMS

Day : Friday
Date : 16/05/2025

S-23939-2025

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat labelled diagrams **WHEREVER** necessary.

Q.1 What is DBMS? Draw and explain the Database System Architecture with suitable example. (10)

OR

Q.1 Explain the levels of Data Abstraction. (10)

Q.2 Describe in brief Modelling of UNION types using categories. (10)

OR

Q.2 Explain Specialization and Generalization with suitable example. (10)

Q.3 Explain:
i) GRANT ii) Revoke with example. (10)

OR

Q.3 What is DDL? What are the different operations performed using DDL. Explain with suitable example. (10)

Q.4 Discuss the ACID properties of Transactions. (10)

OR

Q.4 Explain Boyce-Codd Normal Forms. (10)

Q.5 Write short notes on:
i) Lock base protocols ii) Two phase locking (10)

OR

Q.5 Explain Tuple Relational calculus and Domain relational calculus. (10)

Q.6 Explain architectural model for Distributed DBMS. (10)

OR

Q.6 Explain the concept of Basic file systems. (10)

* * * *