

COMP 232 Database Management Systems
Computer Science / II Year / II Semester
Department of Computer Science and Engineering
Second Internal Exam

Answer all questions.

[4Q*5=20]

1. Design a table named University. State and assume necessary constraints required to normalize the table. Breakdown the tables into required tables to demonstrate normalization (1NF, 2NF, 3NF, BCNF).
2. Draw and explain states of Transaction in database management system. Explain with example how a transaction is processed in SQL.
3. State a problem highlighting the need for concurrency control. Define deadlock and explain Two-Phase Locking technique in achieving concurrency with example.
4. Explain the significance of transaction Log in database management systems. Explain two automated recovery mechanisms in detail highlighting their types of algorithm.