

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2025**

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19PCSS3C11 - ADVANCED DATABASE MANAGEMENT SYSTEM**

(Computer Science)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

**Part-A**Answer any ***four*** questions. Each question carries 2 weightage.

1. Compare hierarchical datamodel and network datamodel.
2. Explain generalization and specialization.
3. Explain the term normalization.
4. What are the different pattern matching operators in SQL?
5. What is a join? Explain.
6. What are different types of locks?
7. What is View Serializability?

**(4 × 2 = 8 Weightage)****Part-B**Answer any ***four*** questions. Each question carries 3 weightage.

8. Discuss the main characteristics of the database approach and how it differ from the traditional file system?
9. Explain the anomalies in relational database design. Explain each with suitable example.
10. Compare Project Join Normal Form and Domain Key Normal Form.
11. Write query for alter tables of student personal data and student academic data.
12. Explain about I/O constraints and unique key constraint.
13. Explain multiple trigger interaction.
14. Explain two phase locking protocol.

**(4 × 3 = 12 Weightage)**

### **Part-C**

Answer any ***two*** questions. Each question carries 5 weightage.

15. Write an overview of relational algebra.
16. Define transaction. Explain the states of transaction and ACID properties.
17. Discuss the concepts of OODBMS, advantages and disadvantages of OODBMS.
18. Describe commit protocols for distributed databases.

**( $2 \times 5 = 10$  Weightage)**

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