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Name:

Reg.No:

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P CSS3 C11 - 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. Discuss about domain constraints.
- 2. Explain about tuple relational calculus.
- 3. Explain about 4NF with suitable example.
- 4. How to join a table to itself?
- 5. What is locks?
- 6. What is a cursor?
- 7. What is View Serializability?

 $(4 \times 2 = 8$ Weightage)

Part-B

Answer any *four* questions. Each question carries 3 weightage.

- 8. Explain data independence in detail.
- 9. What is the need for decomposition of a table in DBMS? Explain.
- 10. Explain Boyce-Codd Normal form. How it is different from third normal form?
- 11. How to modify the structure of the tables?
- 12. Explain about I/O constraints and unique key constraint.
- 13. Write queries for the following:
 - a) List the students with names starting with A D and K in the student table.
 - b) List the female students with student numbers between 30 and 50.
- 14. Describe the time stamp ordering Protocol.

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Part-C

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

- 15. Construct and explain an E-R Diagram for the Company database with proper Entities and Attributes.
- 16. Define transaction. Explain the states of transaction and ACID properties.
- 17. Discuss the features, advantages and disadvantages of OODBMS.
- 18. Discuss commit protocols for distributed databases.

 $(2 \times 5 = 10 \text{ Weightage})$
