D3ACS2201 **(1 Page)** **Name.....**

Reg.No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023

(Regular/Improvement/Supplementary)

COMPUTER SCIENCE

FCSS3C11-ADVANCED DATABASE MANAGEMENT SYSTEM

Time: 3 Hours **Maximum Weightage: 30**

Section A: Short answer questions. Answer any *four* questions. Each carries *two* weightage.

1. Explain the 3-Schema architecture of DBMS.
2. Explain data independence.
3. What do you mean by transaction processing system? What are the different types of failures in a transaction?
4. Explain the advantages of DDBMS.
5. What are the different types of attribute of an entity in an ER model?
6. Explain the significance of ALTER statement.
7. Elaborate on the multivalued dependencies.

(4 × 2 = 8 weightage)

Section B: Short essay questions. Answer any *four* questions. Each carries *three* weightage.

8. Explain the concept of fragmentation, replication and allocation.
9. Briefly explain third normal form with example.
10. Give a note on the informal guidelines in a database design.
11. Discuss the need of stored procedure with example.
12. Explain the common clauses used with SELECT statement in SQL.
13. Write short notes on: a) recoverable schedule and non-recoverable schedule; b) serial and non-serial schedule and c) cascading schedule and strict schedule.
14. Explain the commit protocol for DDBMS.

(4 × 3 = 12 weightage)

Section C: Essay questions. Answer any *two* questions. Each carries *five* weightage.

15. Give a detailed account on the different components of DBMS.
16. Explain query processing in DDBMS.
17. Describe the 2-Phase locking scheme in concurrency controlling mechanism.
18. Discuss the significance of join dependency and Fifth Normal Form.

(2 × 5 = 10 weightage)