



QP CODE: 22000600



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Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION , JANUARY 2022

Second Semester

M.Sc.COMPUTER SCIENCE (DATA ANALYTICS)

CORE - CA030202 - ADVANCED DATABASE MANAGEMENT SYSTEM

2019 Admission Onwards

C2A7CCCC

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What is data independence?
2. What is relational model?
3. What are the different set operations in Relational algebra?
4. Briefly explain 3NF with an example?
5. What is join dependency and fifth normal form?
6. Illustrate retrieval of data using SELECT command with example.
7. With suitable examples explain how to create views in SQL.
8. List the advantages and disadvantages of using triggers.
9. Describe remote backup systems.
10. What is a composite object?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Explain ER diagram.
12. Differentiate between Generalization and Specialization.
13. Explain about SELECT and PROJECT operations in relational algebra.
14. What do you mean by multivalued dependency write and explain the 4NF?





15. Illustrate with suitable example to show the pattern matching clause in SQL?
16. Briefly explain i) Delete ii) Drop iii) Truncate with suitable example.
17. Explain the difference between the three storage types—volatile, non- volatile, and stable—in terms of I/O cost.
18. Briefly explain federated database schema architecture.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Discuss about three schema architecture and data independence.
20. What is Database Anomaly .What are the methods to solve the anomalies illustrate each with an example?
21. Explain how to create procedures in SQL. How conditional and repeated executions can be implemented in stored procedure.
22. Consider a file system such as the one on your favorite operating system.
 - a. What are the steps involved in creation and deletion of files, and in writing data to a file?
 - b. Explain how the issues of atomicity and durability are relevant to the creation and deletion of files and to writing data to files.

(2×5=10 weightage)

