

QP CODE: 22001703



Reg No : .....

Name : .....



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**M Sc DEGREE (CSS) EXAMINATION, JULY 2022**

**First Semester**

M.Sc. Artificial Intelligence

**CORE - AI010103 - DATABASE TECHNOLOGY AND NOSQL**

2020 ADMISSION ONWARDS

D03CFE71

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any eight questions.*

*Weight 1 each.*

1. Write about data independence.
2. Discuss about Database users and Administrators.
3. Define foreign key with example. What is this concept used for?
4. How to translate Relationship sets with Key constraints ?
5. Discuss the basic form of SQL query.
6. Briefly explain Boyce codd normal form.
7. Discuss View Serializability.
8. How deadlock can be detected ?
9. History of Nosql database.
10. What is write write conflict in replication?

(8×1=8 weightage)


**Part B (Short Essay/Problems)**

*Answer any six questions.*

*Weight 2 each.*

11. What are the disadvantages of DBMS ?
12. Explain about Mapping cardinalities with example.
13. List the table modification commands in SQL.



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14. What is a View & Why are Views used for ?
  15. Explain about transition states.
  16. Explain about distributed concurrency control.
  17. Explain about CAP Theorem.
  18. Write a note about Master- Slave replication.

(6×2=12 weightage)

**Part C (Essay Type Questions)**

Answer any **two** questions.

Weight 5 each.

19. Explain about Additional feature of ER Model (key constraints, Participation constraints, Weak entities, Class Hierarchies & Aggregation).
20. Explain about all types of DBMS keys with example.
21. Explain any 10 sql commands with example.
22. Write an essay about " MongoDB".

(2×5=10 weightage)