

QP CODE: 25047648



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

MSc CYBER FORENSICS

ELECTIVE - CF810301 - DATABASE CONCEPTS AND SECURITY

2019 ADMISSION ONWARDS

1C26B224

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Write short note on three-schema architecture used in database system concepts.
2. Write about three tier and n-tier architecture used for web application.
3. Define entities and attributes.
4. What are the constraints on specialization and generalization?
5. What are the reasons behind transaction failed in the middle of execution ?
6. What is the difference between basic timestamp ordering and strict timestamp ordering ?
7. Write briefly on propagation of privileges using the GRANT option.
8. What is statistical database security?
9. Write any three major components of architecture of typical data mining system.
10. What are three data warehouse models ?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Write about various advantages using DBMS approach.
12. Explain briefly Updating operation, insertion operation, Deletion operation that dealing with constraints violations.
13. Describe weak entity type.
14. Explain first normal form, second normal form and third normal form.





15. Explain transaction states and additional operations.
16. Discuss about dealing with deadlock and starvation.
17. Briefly explain role-based access control.
18. Compare OLTP and OLAP.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Define database and explain in detail about characteristics of database approach.
20. Describe : a). Multivalued dependencies and fourth normal form b). Join dependency and fifth normal form
c).Functional dependency
21. Write a short note on:- a)Desirable properties of transaction. b)Characterizing schedules based on recovery.
22. What is database security and its types, threads to database and control measures?

(2×5=10 weightage)

