



K24U 3416

Reg. No. :

Name :

**III Semester B.Sc. Degree (C.B.C.S.S. – O.B.E.-Regular/Supplementary/
Improvement) Examination, November 2024
(2019 to 2023 Admissions)**

**GENERAL AWARENESS COURSE IN COMPUTER SCIENCE/COMPUTER
SCIENCE WITH AI AND ML**

3A12CSC : Database Management System

Time : 3 Hours

Max. Marks : 40

**PART – A
(Short Answer)**

Answer **all** questions.

(6×1=6)

1. What is transaction management in database systems ?
2. Define a weak entity set.
3. What does the 'CREATE' command do in SQL ?
4. What is the purpose of the 'UPDATE' command in SQL ?
5. What is a sequence in SQL ?
6. What is domain relational calculus ?

**PART – B
(Short Essay)**

Answer **any 6** questions.

(6×2=12)

7. What are the different types of data models in database systems ?
8. What is the database structure ?
9. Define normalization in the context of databases.
10. What is the purpose of the 'ALTER' command in SQL ?

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11. What are the different data types used in SQL ?
12. Explain integrity constraints with an example.
13. What are views in SQL and how are they used ?
14. Differentiate between tuple calculus and domain calculus.

PART – C
(Essay)

Answer **any 4** questions.

(4×3=12)

15. Discuss the role of the DBA in managing databases.
16. What are the design issues in the E-R model ?
17. Explain functional dependency with an example.
18. Describe the BCNF normal form.
19. Explain the 'DELETE' command in SQL and its usage.
20. What are the fundamental operations in relational algebra ?

PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Explain the purpose and importance of database systems with real-world examples.
 22. What are keys in a database ? Discuss primary key, foreign key and candidate key with examples.
 23. Discuss the role of join operations in SQL. Explain different types of joins.
 24. Explain triggers in SQL with an example of how they are used for automation.
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