TB222090W **Reg. No :.....**

Name :.....

B. Sc. / B. Voc. DEGREE (C.B.C.S.) EXAMINATION, MARCH 2023

2022 Admissions Regular & 2021 Admissions Supplementary / Improvement And 2020, 2019 And 2018 Admissions Supplementary

SEMESTER II - CORE COURSE (COMPUTER APPLICATIONS)

(Common for Computer Application & SWD)

CA2B03B18 - DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours **Maximum Marks : 80**

Part A

I. Answer any Ten questions. Each question carries 2 marks **(10x2=20)**

1. Discuss network data model.
2. Explain the significance of query in database transaction.
3. Differentiate between data and database
4. Define Candidate Key.
5. Foreign key preserve referential integrity constrain in a relational model. Discuss your view on the statement. .
6. Differentiate simple and multi valued attribute.
7. Give the syntax of ALTER command in SQL.
8. Illustrate the use of 'like' keyword in SQL.
9. Describe and explain Functional Dependency.
10. Explain Full Functional dependency in relation with 2NF.
11. Explain database audit.
12. Explain timestamp. State its advantages.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Define the following terms,

    1. Data
    2. Information
    3. Database
    4. Meta data
    5. Query
    6. Transaction

14. Discuss UNION and INTERSECT operation in relational calculus.
15. Differentiate between schema and instance.
16. Write and explain the structure of SQL ALTER statement with suitable example.
17. Define foreign key ? How does it play a role in the join operation ?
18. Discuss 3NF with E.g.
19. Differentiate between fully functional dependency and partial dependency.
20. Discuss the rules followed when shared/exclusive locking scheme is used.

21. List the problems faced when concurrent transactions are executed in an uncontrolled manner ? Give an example and explain.

Part C

III. Answer any Two questions. Each question carries 15 marks **(2x15=30)**

22. List the pitfalls of traditional file processing system with Database Systems.
23. Draw an ER diagram for a Banking application.
24. Explain with the help of suitable examples the GROUP BY and HAVING Clause in SQL.
25. Discuss the desirable properties of Transactions.