

TB242843L

16-4

Reg. No :

Name :

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024
2023 ADMISSIONS REGULAR
SEMESTER II - B.Sc. Computer Applications & B.Voc S.W.D
CA2C03B23 - 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 responsibilities of DBA
3. Explain data dictionary with example.
4. Differentiate simple and multi valued attribute.
5. Explain SQL query language.
6. Explain referential integrity.
7. Explain cardinality of a relationship in DBMS.
8. Write the syntax for creating user defined domain in SQL.
9. Define View and List the steps to create view
10. Explain deletion anomalies.
11. Explain deadlock ?
12. Explain rollback operation in DBMS.

Part B

II. Answer any Six questions. Each question carries 5 marks

(6x5=30)

13. Differentiate between Query compiler and query optimizer.
14. Explain the responsibilities of DBA.
15. Discuss MINUS and DIVISION operation in relational calculus.
16. Illustrate with syntax and examples the use of aggregate functions?
17. 38. Consider the following tables: Employee (Emp_no, Name, Emp_city) Company (Emp_no, Company_name, Salary) i. Write a SQL query to display Employee name and company name. ii. Write a SQL query to display employee name, employee city, company name and salary of all the employees whose salary >10000 iii. Write a query to display all the employees working in 'XYZ' company.
18. Discuss Primary Indexes.
19. Discuss 3NF with E.g.
20. Explain the desirable properties of transactions.
21. Explain different types of security in Data base.

Part C

III. Answer any Two questions. Each question carries 15 marks

(2x15=30)

22. Explain with a diagram the component modules of a DBMS and their interactions.
23. Explain Correlated Nested and Subqueries in SQL with example.
24. Discuss various informal guidelines in relational schema.



25. Why concurrency control is needed? What are the different types of problems we may encounter when two transactions run concurrently. Illustrate each problem with suitable example.

