

24U103

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Name:

Reg.No:

FIRST SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2024

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC21U SDC1 DB03 - DATABASE MANAGEMENT SYSTEM WITH MONGO DB

(Information Technology)

(2021 Admission onwards)

Time : 2.5 Hours

Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Define DBMS.
2. Define Data Independence.
3. Define DML.
4. What does the cardinality ratio specify?
5. Define Specialization.
6. What is the use of rename operation?
7. Define Transitive dependency.
8. Define third Normal Form.
9. Define Fourth Normal Form.
10. List the table modification commands in SQL.
11. Discuss the Comparison operators in SQL.
12. List the set operations of SQL.
13. Explain how to destroy view.
14. What is transaction?
15. Define View serializable.

(Ceiling: 25 Marks)

Part B (Paragraph questions)

Answer *all* questions. Each question carries 5 marks.

16. List the applications of DBMS.
17. Explain: (a) Data Models (b) Schema and Instance

18. Explain different constraints in Relational model.
19. Distinguish between Relational Calculus and Domain Calculus.
20. What is multi valued dependency? Illustrate 4NF with an example.
21. What are the different set operations in SQL?
22. Illustrate the usage of SQL GROUP BY, ORDER BY and HAVING clauses.
23. Explain MongoDB datatypes.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any *two* questions. Each question carries 10 marks.

24. Explain about Database Administrators and users.
25. Explain the mapping cardinalities and participation constraints on binary relationship types.
26. Explain about Normalization theory. Discuss various normal forms with examples.
27. Briefly discuss about various lock based mechanisms used in concurrency control.

(2 × 10 = 20 Marks)
