

23U157

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Name:

Reg.No:

FIRST SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC21U SDC1 DB03 - DATABASE MANAGEMENT SYSTEM: 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 DBA? List the role of DBA.
3. Differentiate between procedural and nonprocedural DMLs.
4. Define E-R model.
5. Explain the two types of participation constraint.
6. Define UPDATE operation.
7. Define third Normal Form.
8. What is decomposition?
9. List the table modification commands in SQL.
10. Define syntax and working of IN operator.
11. List the aggregate functions supported by SQL.
12. List the set operations of SQL.
13. Define the term Log in transaction.
14. What is Cascading Rollback?
15. Differentiate strict two phase locking protocol and rigorous two phase locking protocol.

(Ceiling: 25 Marks)

Part B (Paragraph questions)

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

16. What are the advantages and disadvantages of DBMS?

17. Define Data Independence. What is the difference between logical data independence and physical data independence? Which one is harder to achieve? Why?
18. Explain Constraints on Specialization and Generalization.
19. Explain different constraints in Relational model.
20. Explain Relational database design Anomalies in a database.
21. What are the four types of SQL commands?
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. Define the term data model. Discuss the main categories of data models.
25. Differentiate Relational Calculus and Domain Calculus.
26. Explain about Normalization theory. Discuss various normal forms with examples.
27. What are views in SQL? Explain how views are created, managed, and destroyed in SQL.

(2 × 10 = 20 Marks)
