MAY 2024 **P/ID 17615/PCA4M/PCATC**

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Define DBMS.
2. What do you mean by Tuple?
3. Name the various Integrity constraints in DBMS.
4. What is meant by functional dependency?
5. Write a note on Web interface in DBMS.
6. Expand RAID.
7. What is dynamic hashing?
8. Give an example query using JOIN operator.
9. What do you mean by Atomicity property?
10. State the command for concurrency control.
11. Mention two advantages of client/server architecture.
12. Differentiate between Homogeneous and Heterogeneous database.

PART B — ($5 \times 6 = 30$ marks)

Answer any FIVE questions.

13. List down the merits of DBMS.

14. Write short notes on Recursive queries.

15. Explain the decomposition of a database using functional dependencies.

16. What is called Table inheritance? Explain it with syntax and suitable example.

17. Explain sorting in SQL query with syntax and example.

18. Explain the mechanism for handling deadlock.

19. Write short notes on Distributed database.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Compare Tuple relational calculus and Domain relational calculus.

21. Describe the various Normal forms with suitable examples.

22. Discuss about Query optimization techniques.

23. Explain the following:

    (a) Serializability

    (b) Buffer management.

24. Describe the parallel system architecture with neat sketch.

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