Time : Three hours   Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is NULL value? Why it is used?

2. Expand the term SQL and write its use in DBMS environment.

3. What do you mean by weak entity? Give an example.

4. Define the term persistence.

5. What is functional dependency? Give an example.

6. What is meant by normalization?

7. Expand the term RAID and write its significance.

8. What is B-Tree?

9. Differentiate between static and dynamic hashing.

10. Define the term Atomicity.

11. Define the term durability.

12. What is meant by heterogenous database?

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Explain relational algebra operators with examples.

14. Explain first normal form with an example data table.

15. Write short notes on object based database.

16. Describe the data types in SQL.

17. Explain briefly about buffer management.

18. Explain two–tier architecture for database access.

19. Write short notes on distributed databases.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Describe the features of relational model.

21. Explain in detail about E-R model and how it is converted to relational model.

22. Explain the use of indexing and hashing in databases.

23. What is the need for concurrency control? Explain anyone concurrency control mechanism used in distributed database.

24. Describe the architecture of distributed database.

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