Time : Three hours   Maximum : 80 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Differentiate between schema and instance.

2. What is the importance of handling null values in a relation?

3. Define the terms domain, attribute, tuple and relation.

4. What is the objective of normalization?

5. Define multivalued dependency.

6. Mention the storage types.

7. Define term index.

8. What is B tree?

9. List the properties of transaction.

10. Give the reasons for allowing concurrency.

11. What is parallel system?

12. Write the syntax for create table command.

SECTION B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. What is a view? Explain it.

14. Briefly explain embedded SQL.

15. Brief on relational database design.

16. Write short notes on RAID.

17. Give brief account on query optimization.

18. Describe briefly about deadlocks.

19. List and explain network types.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Discuss the various advantages and disadvantages of DBMS.

21. Explain basic notations of ER diagram with examples.

22. Explain in detail about hashing techniques.

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23. Describe concurrency control with time stamping method. Give examples.

24. Describe the evolution from centralized DBMSs to Distributed DBMSs.

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