

**DATABASE MANAGEMENT SYSTEM****MODEL QUESTIONS:**

1. Compare and contrast between a file processing system and DBMS.
2. What is normalization? What are the different normal forms?
3. What do you mean by insertion and deletion anomalies? Explain with examples.
4. What do you mean by entity sets? What are strong and weak entities? Give examples.
5. Why do we need weak entity set? Explain. How can we convert a weak entity set to a strong entity set?
6. Why do we need Cartesian product operation? Explain this operation with an example.
7. What do you mean by data abstraction? Explain different levels of data abstraction.
8. What are the main functions of a database administrator? Explain in detail.
9. Why are relation normalized? Explain 2NF, 3NF and BCNF relations with suitable example.
10. Discuss mapping cardinality constraints.
11. Discuss the overall system architecture of a relational database management system with proper block diagram.
12. Discuss the three schema architecture of a database system.
13. Discuss the role of a high-level data model in the database design process.
14. What is the difference between specialization and generalization? Why do we not display this difference in schema diagrams?
15. What is Relational algebra? What is Cartesian product?
16. Discuss the advantages and disadvantages of DBMS.
17. Define BCNF. How does it differ from 3NF? Why is it considered a stronger form of 3NF?
18. Explain lossless decomposition and dependency preserving. 20. Write short notes on the following:
  - (a) Primary key
  - (b) Candidate key
  - (c) Foreign key
  - (d) DDL
  - (e) DML
  - (e) Entities
21. What is the need for concurrency control and Recovery in DBMS?

22. What is serialisability? Explain control and view serializabilities.
23. Explain all the states of a transaction process with proper diagram.
24. What is multi-valued dependency? Explain.
25. What is a transaction? What are the various characteristics that a transaction must possess? Explain the various transaction states.
26. Explain Dead lock detection and recovery mechanisms
27. Discuss different levels of security and authorization to ensure database security.
28. Explain simple queries
29. Explain self join and equijoin.
30. What is PL/SQL Programming
31. Explain Oracle functions
32. What is trigger? What is type of trigger?