

**MCA-13 Advance Database Management System**

**SET : 1**

**Section-A**

(Very Short Answer Questions)

1. (i) What is Database Management System?
- (ii) What is Data Ware House?
- (iii) What is Entity set?
- (iv) What is derived attribute?
- (v) Define instance and schema?
- (vi) What is a data dictionary?
- (vii) Define null values.
- (viii) Define spooling.
- (ix) What is ROLLBACK?
- (x) What are the properties of transaction.

**Section-B**

(Short Answer Questions)

2. What are different types of languages used to specifying database Schema?
3. What are the roles of Database Administrator?
4. What is file based approach of database? Explain its limitations.
5. Difference between Specialization and Generalization.
6. Explain Loss – Less Join properties with example.
7. What are the functions of Dirty bit? Explain in Detail
8. How locking is used to solve the problem of synchronized access.
9. What is timestamp? Why it is used?

**Section-C**

(Long Answer Questions)

10. What is Database Management System? Explain Database Architecture.
11. Explain levels of Abstraction in Database Management System.
12. Why ER Diagram is important. Explain various Symbols used while designing ER Diagram
13. What is System Log? What are the different kinds of records while maintaining the System Log.

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**SET : 2**

**Section-A**

(Very Short Answer Questions)

1. (i) What is weak Entity?  
(ii) What is degree of relationship?  
(iii) Who is the father of Relational database System?  
(iv) Define the term Domain.  
(v) What is a primary key?  
(vi) What is transaction?  
(viii) Why COMMIT statement is used?  
(viii) What are audit trails?.  
(ix) Name the various privileges in SQL  
(x) Give some encryption techniques?

**Section-B**

(Short Answer Questions)

2. What is a SQL Joins? Briefly explain its types with examples.
3. What are functional Dependencies? Explain.
4. Explain BCNF. How it is differ form 3NF
5. What are different types of anomalies? Explain in details
6. Why encryption and decryption is important? Compare DAC and MAC.
7. Explain different types of Scheduler?
8. What are the desirable properties of transaction? Explain
9. Explain RSA Public Key Encryption algorithm with example.

**Section-C**

(Long Answer Questions)

10. What are different operations in domain relational calculus and how it is different than tuple relational calculus?
11. Write short note on the following:
  - a. CURSORS
  - b. TRIGGERS
  - c. PROCEDURE
12. What is the need of concurrency control? Discuss the problems that may occur when two transactions run concurrently
13. Why Locking mechanism is used in Database management System? Explain different types of locking.