DBMS Question Bank

Long Question:

Chapter-1

1. What is the role of DBA in database?
2. What is database user? Name and explain various type of database user.

Chapter-2

1. Explain different symbols used in E-R model with example.
2. Define Data Independence. Explain its types.
3. Explain attribute and mapping constrants.
4. What do you mean by data model? Describe the types of data model.

Chapter-3

1. Define Relational algebra. Explain different operators Select, Project with examples.
2. What is join? Explain different type of join used in DBMS with example.

Chapter-4

1. Define normalization. Describe the condition of 1NF,2NF,3NF and BCNF.

Chapter-5

1. Explain various types of database languages used in SQL. Write down the syntax with example of following command in SQL.
    i. CREATE
    ii. INSERT
    iii. UPDATE

Chapter-6

1. What is Transaction? Describe ACID properties of Transaction.
2. What do you mean by serializability and recoverability of a Schedule?
3. Draw transaction state diagram and describe each state that a transaction goes through during its execution.
4. Explain in detail about timestamp based concurrency control techniques.
5. Why the concurrency control is needed? Explain it.

Chapter-7

1. What are the difference concurrent control problems? Explain with example.
2. What do you mean by lock? List the type of lock.

Chapter-8

1. Explain Security and Integrity constraints.

Short Question:

Chapter-1

1. What are the disadvantages of File processing?
2. What is DBMS? Explain advantages and disadvantages of DBMS.
3. What are the different components of DBMS?
4. Explain different types of databases.
5. Explain Data anomalies.
6. What are the functions of DBMS?
7. What is a view? Explain it.

8. Describe the properties of a relation.

Chapter-2

1. Explain the importance of Database models

2. Explain Hierarchical Data Model.

3. Explain Network Data Model.

4. Explain Relational Database Model.

5. Explain Entity Relationship Model.

6. Explain The Object Oriented Model.

7. Explain Data abstraction or 3 schema architecture.

8. What is the difference between Strong and weak entity?

9. What is the Difference between Single valued and multi valued attributes?

10. What is Data Redundancy?

11. What do you mean by Entity and Entity set?

12. What is Data Dictionary?

13. Explain Mapping constraints.

Chapter-3

1. Practice problem on select, project and join operation.

Chapter-4

1. Why do we need normalization?
2. Differentiate between primary key and a candidate key.
3. What is 3NF?
4. Why foreign key constraints are important? Explain with employee database.
5. What is functional dependency?
6. State BCNF. How does it differ from 3NF?

Chapter-5

1. Write Syntax of SQL Order By and Group By clauses.
2. By considering an example describe various data update operations in SQL.

Chapter-6

1. Differentiate specialization and generalization.
2. What is a Schedule?
3. What is starvation?

Chapter-7

1. Why do we need locks? Explain.
2. What is Deadlock? Write its conditions.