

UNIT-III

1. Define normalization. Explain various NF with examples.
2. Define Functional dependency. List the properties of FD
3. Explain different types of FD with examples.
4. What is decomposition? List out the problem with decomposition.
5. What are the properties of decomposition
6. Differentiate various dependencies like partial, transitive, fully functional, multi valued dependency
7. List the characteristics of normalization
8. List the 4 rules of 1 NF (Or) How to achieve 1 NF
9. Differentiate redundant data and normalization

UNIT-IV

1. Define transaction. Explain various transaction properties (ACID properties)
2. Explain the states of transactions with neat diagram.
3. What is Schedule? Explain different types of schedules.
4. List the categories of failures.
5. Explain Serializability and list out the benefits of it
6. Explain recoverability and how we can achieve it in DBMS.
7. Explain concurrency control in DBMS and list some problems with concurrent execution
8. What is Dirty Read problem? Explain with example
9. Explain the following recovery procedures
 - (a) Log based recovery
 - (b)Checkpoint

UNIT-V

1. Explain different types of concurrency control protocols
 - (a) Lock based
 - (b) Time stamp
 - (c) validation based
2. Differentiate the following lock types
 - (a) Shared lock
 - (b) Exclusive lock
3. Explain various types of lock protocols
 - (a) Simplistic
 - (b) pre claiming
 - (c) Two-phase locking
 - (d) Strictly 2 PL
4. Differentiate growing and shrinking phase
5. Explain various phases of validation based protocol
 - (a) Read phase
 - (b) validation phase
 - (c) Write phase
6. What is deadlock and explain the following
 - (a) Dead lock avoidance
 - (b) Dead lock detection
 - (c) Dead lock prevention
7. Define Wait for graph
8. Differentiate wait Die scheme and Wound wait scheme.

