

## Unit –I

### Part -A

- 1) Analyze the word Data fragmentation.
- 2) What is Distributed Database?
- 3) Describe the difficulties of Distributed Databases.
- 4) Distinguish Homogeneous and Heterogeneous Distributed Database.
- 5) Describe Data Replication.
- 6) List down the Methods of Data Fragmentation of a Table.
- 7) Compare Immediate Update and Deferred update.
- 8) Define Lock.
- 9) Illustrate Two Phase Lock.
- 10) What are the three parameters for developing DDBMS architectures?
- 11) Mention the Architectural models for DDBMS.
- 12) What are the advantages of Parallel Databases?
- 13) What are the types of Homogeneous and Heterogeneous Distributed Databases?
- 14) Illustrate Peer-to-Peer Architecture for DDBMS.
- 15) What are the 2 design alternatives for multi-DBMS?
- 16) What is Query Processing in Distributed DBMS?

### Part –B

- 1) Illustrate Distributed Database with proper diagram(s).
- 2) Write short notes on Replication and allocation techniques for DDBMS.
- 3) Define DDBMS? Explain the methods for designing and implementing DDBMS.
- 4) Explain the steps involved in designing a relational database?
- 5) Describe OODBMS. Discuss Object Oriented DBMS in detail.
- 6) Explain about Parallel Database with its various types of architectural designs.
- 7) Describe the architectural model of client server DDBMS.
- 8) Explain the steps involved in Query Processing with diagram.

## Unit – II

### Part -A

- 1) Justify the need of Security in Distributed Data base
- 2) Illustrate the term consistency in the context of distributed databases
- 3) List out the cryptographic algorithms available
- 4) Does Digital signature give unique identity. Justify your answer
- 5) What is Concurrency Control?
- 6) What are the Potential problems of Concurrency
- 7) List the Concurrency Control techniques in DDBMS
- 8) Define Serializability theory
- 9) Give the steps carried out in Time stamp ordering Protocol
- 10) What is a consistent database state, and how is it achieved?
- 11) List and discuss the five transaction properties.
- 12) What is a scheduler, what does it do, and why is its activity important to concurrency control?
- 13) What is an exclusive lock, and under what circumstances is it granted?
- 14) How does deadlocks occur in Distributed data base
- 15) What is interoperability in DBMS?

### Part - B

- 1) Give the various cryptographic algorithms present and how they are used in the real time application.
- 2) Elaborate the procedure of using the Digital signature in a document
- 3) How does concurrency control is implemented in the real time environment? State the issues in achieving it.
- 4) Illustrate the deadlock detection and avoidance technique in Distributed Database Environment
- 5) Describe Taxonomy of concurrency control mechanisms
- 6) Discuss in detail about the serializability theory in Distributed Database
- 7) Demonstrate why security is important in Distributed database and explain how to implement it.
- 8) Illustrate how Web data management is done

## Unit – III

### Part -A

- 1) Distinguish between symmetric and asymmetric crypto system.

- 2) Define Authentication.
- 3) List out the different authentication exchanges.
- 4) Classify the different types of hash table.
- 5) Define Structured overlays.
- 6) Define Tapestry.
- 7) What is the significance of random graph networks.
- 8) Why authentication is required in distributed system.
- 9) List out the elements of a basic crypto system.
- 10) Kerberos Authentication Service is related with symmetric crypto system. Justify.
- 11) What are the features of a SSL protocol.
- 12) How SSL provides authentication?
- 13) What is EKE protocol?
- 14) Give an example for SRP protocol.
- 15) What are the characteristics of P2P networks.
- 16) State "SYM" principle.

#### Part-B

- 1) Explain in detail about the protocols based on symmetric crypto systems.
- 2) Explain in detail about the protocols based on asymmetric crypto systems.
- 3) Give the client server architecture for SSL handshake protocol.
- 4) Give a brief description about password based authentication protocols.
- 5) List out and explain about structured and unstructured overlays techniques.
- 6) Explain the following
  - I) Tapestry
  - II) CAN
  - III) Chord distributed hash table
- 7) What are basic graph structures of complex networks. Explain in detail.
- 8) Give a note on " Authentication in Distributed System"