CS8492 Database Management Systems

Important 13mark Questions

Unit I

1. Briefly explain about Database system architecture.
2. Explain first normal form, second normal form, third normal form and BCNF with an example.
3. What are the advantages of having a centralized control of data? Illustrate your answer with suitable example.
4. Distinguish between lossless-join decomposition and dependency preserving decomposition.

Unit II

1. Briefly explain about Query processing.
2. Explain Query Optimization with an example.
3. State and explain the command DDL, DML, DCL with suitable example.
4. Explain the catalog information for cost estimation for selection and sorting operation in database.

Unit III

1. What is concurrency control? How is it implemented in DBMS? Illustrate with a suitable example.
2. Briefly explain about Two phase commit.
3. Discuss the violations caused by each of the following: dirty read, non repeatable read and phantoms with suitable example.
4. What is deadlock? How does it occur? How transactions be written to
   (i)   Avoid deadlock
   (ii)   Guarantee correct execution.

Unit IV

1. What is RAID? List the different levels in RAID technology and explain its features.
2. Briefly explain about B+ tree index file with example.
3. Explain the architecture of a distributed database system.
4. Explain the distinction between static and dynamic hashing? Discuss the relative merits of each technique in database applications.

Unit V

1. Describe the various component of data warehouse and explain the different data model used to store data with example.
2. Explain types of database security and database security issues.
3. Discuss Apriori algorithm for mining association rules with an example.
4. Describe the mobile database recovery schemes.