DBMS IMPORTANT QUESTIONS

2 MARKS QUESTIONS

Explain levels of data abstraction.

Differentiate the truncate and delete.

Define the terms Entity set, Relationship set?

What does the cardinality ratio specify?

What are the different types of SQL constraints?

What is a candidate key?

Define a Transaction? List the properties of transaction.

Discuss different phases of transactions?

What is linear hashing?

What is an index on file of records?

What is DBMS? What are the advantages of DBMS?

What are the types of languages a database system provides? Explain.

What is meant by degree of relationship set?

Define the terms Entity set, Relationship set?

Define NULL values?

Define Trigger?

Explain about transaction ACID properties?

Explain about different types of locks?

What is linear hashing?

How to insert an element in B+ tree?

Define View?

What are the DBA responsibilities?

Define relational algebra?

Define the terms a) attribute b) Entity c) Entity set d) relationship set.

What is meant by functional dependencies?

What is super key?

Write different phases of transactions?

Explain types of schedules-based Recoverability in DBMS?

What is the order of B+ tree?

Differentiate extendible and linear hashing?

Write a query for creating and updating a view?

Write about relational model?

Define relational calculus?

What does cardinality ratio specify?

What is meant by loss less join decomposition

Explain the need of decomposing a relation?

Discuss the Procedure to test Serializability?

Explain about different kinds of lock-based protocols?

What is primary index?

Give example of B+ trees.

Unit-1

1. Define the terms instance and schema.

2. List and explain five reference options in a query.

3. What is storage Manager?

4. Define the terms Entity set , Relationship set?

5. Define weak and strong entity sets?

6. Define NULL values?

7. What are the types of languages a database system provides?

8. Explain levels of data abstraction?

9. What is a data model? List the types of data model used

10. List the disadvantages of relational database system

Unit-2

1. Define relational algebra?

2. Explain union operation and conditions for union compatibility?

3. Define the terms a) attribute b) Entity c) Entity set d)relationship

set.

4. What does cardinality ratio specify?

5. List the data structures implemented by the storage manager.

6. What is meant by normalization of data?

7. What are stored and derived attributes?

8. Explain two types of participation constraints?

9. What is meant by degree of relationship set?

10. What does the cardinality ratio specify?

Unit-3

1. Explain the need of decomposing a relation?

2. What are the parts of basic SQL query?

3. What is foreign key?

4. What is meant by loss less join decomposition?

5. Explain BCNF?

6. Write about relational model?

7. Explain trivial dependencies?

8. What is super key?

9. What is meant by functional dependencies?

10. What is a candidate key?

Unit-4

1. What are the types of failures?

2. Explain ACID Properties of Transaction?

3. Define two phase commit protocol?

4. Discuss recoverable schedules?

5. Explain about different types of locks?

6. Discuss the Procedure to test Serializability?

7. Define a Transaction? List the properties of transaction.

8. Explain Types of Schedules based Recoverability in DBMS

9. Discuss cascade less schedules?

10. Write different phases of transactions?

Unit-5

1. Define indexing and hashing?

2. Explain static hashing?

3. What is a duplicate data entry in an index?

4. What is linear hashing?

5. What is clustered index?

6. What is the order of B+ tree?

7. What is primary index?

8. Explain static hashing?

9. Differentiate extendible and linear hashing?

10. What is the need of indexing?

UNIT-01

Long Answer Questions:

1. What is view on tables? Explain with suitable query?

2. Write a query for creating and updating a view?

3. Explain Database administrators responsibilities?

4. Explain differences between logical and physical independencies?

5. Describe relational databases, how they have been used in the past, and how

they are used

Currently to implement solutions in technology.

6. Draw an Entity Relationship (ER) for railway reservation system?

7. List the commands that belongs DDL with example query?

8. What are Integrity constraints enforced by a DBMS?

9. Discuss the functionalities of Query evaluation engine?

10. Define data base administrator and functions of DBA?

UNIT-02

1. Name the main steps in database design. What is the goal of each step?

In which step is the ER model mainly used?

2. Define all variations of join operation? Why is the join operation given

special

attention?

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special attention?

4. Explain additional features of ER Model?

5. Write relational algebra and set theory that are supported in the

relational model?

6. Draw an ER diagram for university database and department database

7. What is the difference between tuple relational calculus and domain

relational calculus?

8. Explain Cartesian product or cross product and explain which join is

equivalent to it?

9. Describe the set operations of relational algebra with suitable example

queries?

10. Explain union operation and conditions for union compatibility?

UNIT-03

1. How can we identify that the relation is in 2NF?

2. Explain the properties of decomposition?

3. Illustrate your answer that can we use IN,EXISTS,UNIQUE,ANY,ALL in

nested queries?

Explain with example queries?

4. Write short notes on difference, union, rename, Cartesian product in relational

algebra.

5. Differentiate between delete drop and truncate command? Give examples for

each of them?

6. Consider the following relational schema:

Person(SS, Name, Address)

CV (registration_no, Year, Model)

Accident (date, driver, car_reg_no)

Owns(ss#, license)

Construct the following relation algebra queiries:

1. Find the names of persons who are involved in an accident.

2. Find the registration number of cars which were not involved in any

acciddnt.

7. Define the following with examples?

a. Composite Attribute

b. Single and Multivalued Attributes

c. Primary and Foreign Key

8. Draw an entity relationship for railway reservation system?

9. What is a trigger and what are its three parts? What are the differences between row level and statement level triggers?

10. Explain different normal forms based on functional dependencies.

Unit-4

1. Explain transaction states and desirable properties.

2. Define dead lock and explain the two ways to prevent dead lock?

3. Explain advanced recovery techniques

a)logical undo logging b) transaction rollback c) check points

d)restart recovery e) fuzzy check point

4 Discuss in detail Multiple Granularity?

5. How the lock manager implements lock and unlock request. Explain in detail.

6. Write in detail about Remote Backup systems.

7. Explain different types of Advanced Recovery Techniques?

8. Explain Buffer Management?

9. Discuss in detail validation-based protocols?

10. Explain ARIES to reduce the time taken for recovery?

Unit-5

1. Describe B+ tree insertion algorithm, and explain how it eliminates overflow pages?

2. Differentiate indexing and hashing?

3. What is the need of indexing? Explain primary and secondary

indexing.

4. Explain in detail Storage Structure?

5. What is order of a B+ tree? Describe the format of nodes in a B+ tree.

Why are the

nodes at leaf level linked?

6. Write main differences between ISAM and B+ tree indexes?

7. Discuss in detail about multiple granularity

8. Write in detail about index data structures?

9. What is Extendible hashing? How does it handle search, insert and

delete explain in detail.

10. How to insert an element in B+ tree?