

DATA BASE SYSTEMS

CLASS: III-IT &
II-BCA

IMPORTANT 2 MARKS

SUB. CODE

16SCCIT9

16SCCCA4

1. Define data.

DATA in a database is primarily stored in database tables, which are organized into columns that dictate the data types stored therein.

— X —

2. What are the access types of DML?

There are eight types of access types DML in Database.

- ⇒ SELECT
 - ⇒ UNION
 - ⇒ UPDATE
 - ⇒ DELETE
 - ⇒ INSERT INTO
 - ⇒ SELECT INTO
 - ⇒ TRANSFORM
 - ⇒ PARAMETER
- X —

3. List out any database Applications.

The best-known Database using SQL to create and query databases are IBM DB2, Oracle, Microsoft Access and MySQL, dBASE, FoxPro & SQLite.

4. What is meant by transaction?

A database transaction symbolizes a unit of work performed within a database management system against a database, and treated in coherent and reliable.

ex: withdrawing cash at an ATM.

5. Define schema.

A database schema defines its entities and the relationship among them.

A Database schema can be divided broadly into two categories.

- ↳ physical Database schema
- ↳ Logical Database schema

6. What is Super key?

↳ A super key is a set of attributes within a table whose value can be used to uniquely identify a tuple.

↳ A Super key is a set of one or more attributes.

7. Define Relation Schema and Instance. (3)

A relation schema describes how a valid instance of relation in a database Schema must look like.

A relation instance is a set of tuples that adheres to all the requirements that are formulated by the relation schema.

8. What is Candidate key?

The minimal set of attribute which can uniquely identify a tuple is known as candidate key.

Ex: STUD_NO in STUDENT relation. The value of candidate key is unique and non-null for every tuple.

9. List out The ways of Modifying the database.

- ↳ Database Field tab
- ↳ Database Summary Values tab
- ↳ Search tab
- ↳ Queries tab
- ↳ Templates tab.
- ↳ E-mail tab

10. NULL value?

The SQL NULL is the term used to represent a missing value. A NULL value in a table is a value in field appears to be blank.

A 11 What is data definition language?

A Data definition language (DDL) is a computer language used to create and modify the structure of database objects in a database.

ex:-

views, schemas, tables, indexes, etc.

12 Write a note on Rename operation.

The rename operation is used to rename the output relation.

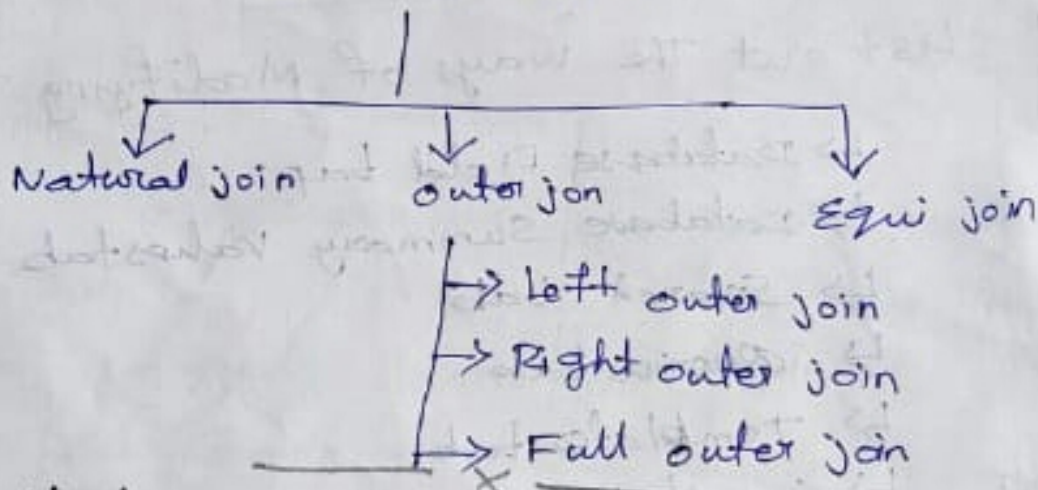
It is denoted by $\rho(p)$.

ex:-

rename STUDENT relation to STUDENT1

13. List the types of joins

Join operation



14. What is tuple variable?

A tuple variable is variable that takes on tuples of particular relation schema as values.

5) 15.

Write a Command for Create view with ex?

```
CREATE VIEW "VIEW_NAME" AS "SQL Statement";
```

ex:

Create a view called V-Customer that contains only the First_Name, Last_Name & Country columns from this table, we would write in

```
CREATE VIEW V-Customer AS SELECT  
First_Name, Last_Name, Country FROM Customer;
```

16. What is Referential Integrity?

Referential integrity refers to the accuracy and consistency of data within relationships, data is linked between two (or) more tables.

17. What is Meant by E-R Model?

Entity Relational (ER) Model is a high level Conceptual data Model diagram.

ER modeling helps to analyze data requirements systematically to produce a well-designed database.

18. What is meant by Condition box?

A relational database systems use SQL conditions or expressions in WHERE clauses and HAVING clauses to SELECT subset of data.

19

Define Relational calculus.

(6)

Relational calculus

Tuple Relational
calculus (TRC)Domain Relational
calculus (DRC)

Relational calculus is a non-procedural query language that tells the system what data to be retrieved but doesn't tell how to retrieve it.

20 What is Entity Sets?

Entity set is a collection of entities sharing exactly the same attributes.

21. What is normalization?

Normalization usually involves dividing a database into two or more tables and defining relationships between the tables.

22. Define Atomic domains.

An Atomic domain of factorization domain is an integral domain in which every non-zero, non-unit can be written in at least one way as a finite product of irreducible elements.

23. What is meant by normal forms? (7)

Normalization is the process of minimizing redundancy from a relation or set of relations.

Normal forms are used to eliminate or reduce redundancy in database tables.

24. What is meant by functional dependencies?

The attributes of a table is said to be dependent on each other when an attribute of a table uniquely identifies another attribute of the same table.

ex:- student table with attributes:

Stu-Id, Stu-Name, Stu-Age.

25. Define BCNF?

Boyce-Codd normal form (BCNF) is a normal form used in database normalization.

BCNF

BCNF was developed in 1974 by Raymond F. Boyce and Edgar F. Codd to address certain types of anomalies not dealt with by 3NF as originally defined.