ANNAI VIOLET ARTS AND SCIENCE COLLEGE
DEPARTMENT OF COMPUTER SCIENCE

CONTINUOUS INTERNAL ASSESSMENT – I (EVEN SEM.)
SUBJECT : RELATIONAL DATABASE MANAGEMENT SYSTEM

Class : III B.Sc. Computer Science   **Date : 01.09.2022-FN**
Max.Marks : 50   **Sub. Code:**

PART A (5 × 2 = 10 Marks)
Answer any FIVE questions

1. What is DML?
2. What is the goal of DBMS?
3. What are the basic notations available in ER model?
4. Define weak and strong entity sets.
5. List some referential integrity constraints
6. Define Primary Key
7. Define relational algebra

PART B – (2 × 5 = 10 Marks)
Answer any TWO questions
8. Discuss about different types of Data Models.
9. Explain Mapping cardinalities.
10. Explain briefly about the integriry constraints

PART C – (3 × 10 = 30 Marks)
Answer ALL questions

11. Describe the architecture of DBMS
12. Write in detail about the conversion of ER Diagram to tables
13. Explain briefly about join operations of relational algebra with example.

Prepared by
Mrs. R. Catherin Ida Shylu
Asst.Prof.

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PART A (5 × 2 = 10 Marks)
Answer any FIVE questions

1. What is DML?
   The language that enables user to access or manipulate data as organized by appropriate data model
2. What is the goal of DBMS?
   It is to provide an environment that is both convenient and efficient use in storing information into the database and retrieve information from the database
3. What are the basic notations available in ER model?
   - Entity sets
   - Relationship sets
   - Attributes
4. Define weak and string entity set.
   The entity set that do not have key attribute of their own are called weak entity sets. The entity set that has a primary key is termed as strong entity.
5. List some referential integrity constraints
   - Domain constraints
   - Key Constraints
   - Referential Integrity Constraints
6. Define Primary Key
   A column in a table whose values uniquely identify the rows in the table. A primary key value cannot be NULL to matching columns in another table.
7. Define relational algebra
   The relational algebra is a procedural query language. It consists of a set of operations that take one or two relations as input and produce a new relation as output

PART B – (2 × 5 = 10 Marks)
Answer any TWO questions

8. Discuss about different types of Data Models.
   Relation Schema
   Relation Instance
9. Explain Mapping cardinalities.
   - One to one
   - One to Many
   - Many to one
   - Many to Many
10. Explain briefly about the integrity constraints
    - Entity Integrity
    - Domain Integrity
    - Referential Integrity

PART C – (3 × 10 = 30 Marks)
Answer ALL questions

11. Describe the architecture of DBMS
    Single tier architecture
    Two tier architecture
    Three tier architecture
12. Write in detail about the conversion of ER Diagram to tables
    - Strong entity sets with simple attributes
    - Strong entity set with composite attributes
    - Stron entity set with multi-valued attributes
13. Explain briefly about join operations of relational algebra with example.
    - Theta join
    - EQUI join
    - Natural Join
    - Outer Join

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