MALINI KISHORE SANGHVI COLLEGE OF COMMERCE & ECONOMICS

CLASS: S.Y.B.Sc I.T (SEM III)

13/10/22

SUBJECT: DATABASE MANAGEMENT SYSTEM

TIME: 2Hrs & 30 Min   Marks: 75

NOTE: ALL QUESTIONS ARE COMPUSORY
        FIGURES TO THE RIGHT INDICATE FULL MARKS
        EXPLAIN WITH ALGORITHM AND EXAMPLES WHEREVER NECESSARY

Q.1 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Explain the purpose of database system
   B) Describe the views of database
   C) Explain the Network database model
   D) Explain relational schemas with the help of example
   E) Describe Codd's rule numbers 1, 2, 3, 4, 5
   F) Draw ER diagram for a college

Q.2 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Describe keys in relational database system
   B) Explain BCNF
   C) Explain Tuple relational calculus
   D) Explain the projection operation in relational algebra
   E) Explain the division operation in relational algebra
   F) Describe join operation

Q.3 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Explain integrity constrains
   B) Explain security in DBMS
   C) Describe delete and drop commands
   D) Explain the features of DDL
   E) Explain the SUM ( ) function
   F) Explain the MIN ( ) function

Q.4 WRITE SHORT NOTES ON FOLLOWING (ANY THREE):   15

   A) 2PL deadlock
   B) Locked based concurrency control
   C) Deadlock recovery
   D) ACID property
   E) States of transaction
   F) Optimistic methods

Q.5 WRITE SHORT NOTES ON FOLLOWING (ANY THREE):   15

   A) Keywords in PL/SQL
   B) Logical operator in PL/SQL
   C) Expressions in PL/SQL
   D) Functions in PL/SQL
   E) Triggers
   F) Exception handling in PL/SQL

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