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Total No. of Questions : 13]   [Total No. of Pages : 02

Paper ID [A0217]

(Please fill this Paper ID in OMR Sheet)

BCA (402) (S05) (LE) (O) (Sem. - 4th)

DATABASE MANAGEMENT SYSTEM

Time : 03 Hours   **Maximum Marks : 75**

Instruction to Candidates:

    1)   Section - A is **Compulsory**.

    2)   Attempt any **Nine** questions from Section - B.

Section - A

Q1)   *(15 × 2 = 30)*

    a)   What is DBMS? What is RDBMS? What is the difference b/w the two?

    b)   What is primary key?

    c)   What is generalization?

    d)   What are various types of attributes in DBMS?

    e)   What do you mean by physical data independence?

    f)   What is conceptual view of DBMS?

    g)   Explain hieratical model of database in brief?

    h)   What is relational calculus?

    i)   Explain the concept of referential integrity in brief?

    j)   What do you mean by Integrity of database?

    k)   What is shared lock and how it is implemented in DBMS?

    l)   What is a transaction?

    m)   What are the various states of a transaction?

    n)   What do you mean by granularity of DBMS?

    o)   What do you mean by recovery of DBMS?

A-74   *P.T.O.*

Section - B

(9 × 5 = 45)

Q2) Compare network model, relational model and hieratical model of DBMS.

Q3) What is DBMS? Give advantages and disadvantages of it.

Q4) What do you mean by database Independence? Explain the various types of database independence.

Q5) What is E-R diagram? Explain various symbols used in it.

Q6) Why normalization of a relation is required? Give various steps to normalize a relation with the help of an example.

Q7) What is SQL? Write the syntax of and there SQL commends.

Q8) Write the following statements in Relational Algebra. Assume there is a table EMP (empno, ename, mangerid, sal, deptno,hiredate,comm).

    (a)   Select all the employee from EMP table who are getting salary more then 10000.

    (b)   Total number of employees that are working in department number 10.

Q9) What is the difference between Drop, Delete and Truncate commands in SQL? Explain in detail.

Q10) What is Integrity and how it is different form security. And how it is implemented in DBMS.

Q11 What do you mean by recovery? Write various methods of recovery in DBMS.

Q12) What is transaction? What are the properties of it?

Q13) Write a note on distributed databases.