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DIT-05

Database Management System

Diploma in Information Technology (DIT-17)

3rd/2nd Semester Examination, 2021 (Winter)

Time : 2 Hours]　　　　　　　Max. Marks : 100

Note : This paper is of Hundred (100) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A
(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Twenty six (26) marks each. Learners are required to answer any Two (02) questions only.

(2×26=52)

1. What is a Management system? Explain its various types. How computerized database approach is differ with the traditional file approach?

2. Define Normalization. Explain 1 NF, 2 NF, 3 NF, BCNF using appropriate examples.

3. What is ER model? Explain various ER modelling symbols with suitable examples.

4. What are the different types of database failure and database recovery? Explain.

5. Write SQL query for following consider table :

(a) Create table

EMP (empno, deptno, ename, salary, designation, joining date, DOB, city).

    (i)   Insert one row into the table.

    (ii)   Save the data.

    (iii) Insert second row into the table.

    (iv) Undo the insertion of the second row.

    (v)   Insert two rows into the table.

    (vi) Create Savepoint s1.

    (vii) Insert one row into the table.

    (viii) Undo upto savepoint s1.

SECTION–B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Twelve (12) marks each. Learners are required to answer any Four (04) questions only.

$(4×12=48)$

1. Write a short note of relational calculus.

2. What are the advantages of Structured Query Language (SQL) ?

3. Who is a DBA? What is the role of the DBA in database management system?

4. List any four DDL and DML commands with suitable examples.

5. What is the project operator in Relational Algebra ? Give one example.

6. What is a view? How views are implemented?

7. What is a group function? List and explain how to use the group functions in SQL with appropriate examples.

8. What is Functional Dependency? Explain with suitable examples.

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