P-878

MCS-505

Database Management System

(MCA/MSCIT)

2nd / 4th Semester Examination, 2023 (June)

Time : 2 Hours]   **Max. Marks : 70**

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION–A
(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. How many types of database models? Explain their advantages and disadvantages with suitable example.

2. (a) Describe the different functions of DBA.

(b) Explain the three tier architecture of DBMS. What is the need of mapping between the different levels?

3. (a) What are the advantages and disadvantages of database systems?

(b) Explain the following term: Data Dictionary, Cardinality of table, Redundancy.

4. Explain the Codd's rule using suitable example.

5. (a) Explain the different symbols used in designing the ER Diagram.

(b) Explain the term generalization, Specialization and Aggregation.

SECTION–B
(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

1. How many types of operators available in SQL? Explain them by writing the SQL query.

2. What do you mean by Normalization? What is the need of Normalization? Explain 1 NF and 2 NF using suitable example.

3. BCNF is stronger than 3 NF. Do you agree with this statement? Yes or No? Justify your answer.

4. Explain all the types of constraints available in SQL.

5. Explain the following terms: Super Key, Candidate Key, Alternate Key, Secondary Key and Foreign Key.

6. Discuss about the scope and types of SQL Server Backup.

7. Explain about the different recovery techniques.

8. Explain the different types of database failure.

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