

C962

Total Pages : 3

Roll No.

MCA-07/PGDCA-07/M.SC (IT)-07

Fundamentals of Database Management System

Master of Computer Applications/ P.G. Diploma in Computer Applications/ Master of Science in Information Technology
(MCA/PGDCA/MSc.IT-11/12/16/17)

Second Semester Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 80

Note : This paper is of Eighty (80) 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 (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. What is Data Models? Also explain the architecture for a database system? Explain with proper example.

2. What is Relational Data Structure? What is the difference between Relational Calculus and domain calculus? Explain.
3. Explain different anomalies you remove while going from 1st Normal Form to 2nd Normal Form and then from 2nd Normal Form to 3rd Normal Form.
4. What is normalization ? Explain the different normal forms with the help of example.
5. Explain the following categories of SQL commands with example :
 - (a) DML command.
 - (b) DDL command.
 - (c) DCL command.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. What is the difference between data and information? Explain.

2. What are the different types of records? Explain the difference between fixed length records and variable length records.
 3. What is a key in database? Explain composite and super key with example.
 4. Explain hierarchical Model and Network Model.
 5. Explain Union, Intersection and Cartesian Product with help of example.
 6. How will you use SUM function and AVG function in SQL?
 7. What is the natural join? Explain with help of example.
 8. What are the different logical operator of SQL? Write the syntax of each.
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