

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, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

Section-A**(Long Answer Type Questions)**

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Define DBMS. What are the advantage of DBMS. Differentiate between Database System and File System.
2. Write short notes on the following :
 - (a) Data Manipulation Language (DML)
 - (b) Data Definition Language (DDL)

3. What is relational algebra ? What are the different operations of relational algebra ?
4. What do you understand by Logical Operators ? Explain any *two* operators with example.

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 *four* (04) questions only.

1. What is the difference between data and Information ?
2. Write down characteristics of SQL.
3. Define Normalization.
4. What is Primary Key ?
5. What are the features of ER Diagram ?
6. What do you mean by Object based Logical Model ?
7. Write the Concept of Relational Data Model.
8. What is the difference between second Normal form and third Normal form ?

Section–C

(Objective Type Questions)

Note : Section ‘C’ contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

1. In an Entity-Relationship diagram “Double Rectangles” represents :
 - (a) Relationship Set
 - (b) Weak Entity Sets
 - (c) Derived Attributes
 - (d) Multi-valued Attributes

2. Full form of SQL :
 - (a) Software Query Language
 - (b) Structure Query Language
 - (c) Structure Question Languages
 - (d) None of these
3. A logical description of some portion of database that is required by a user to perform task is called as :
 - (a) System View
 - (b) User View
 - (c) Logical View
 - (d) Data View
4. A transaction completes its execution is said to be :
 - (a) Saved
 - (b) Loaded
 - (c) Rolled
 - (d) Committed
5. Which of the following is the structure of the Database ?
 - (a) Table
 - (b) Schema
 - (c) Relation
 - (d) None of these
6. Which of the following option is used to retrieval of data ?
 - (a) Stack
 - (b) Data structure
 - (c) Linked list
 - (d) Query

7. The attribute that can be divided into other attributes is called :
 - (a) Simple Attribute
 - (b) Composite Attribute
 - (c) Multi-valued Attribute
 - (d) Derived Attribute
8. In an Entity-Relationship Diagram “Diamonds” represents :
 - (a) Attributes
 - (b) Multi-valued attributes
 - (c) Weak entity set
 - (d) Relationship sets
9. What is ACID properties of Transactions ?
 - (a) Atomicity, Consistency, Isolation, Database
 - (b) Atomicity, Consistency, Isolation, Durability
 - (c) Atomicity, Consistency, Inconsistent, Durability
 - (d) Automatically, Concurrency, Isolation, Durability
10. Entity is a :
 - (a) Object of relation
 - (b) Present working model
 - (c) Thing in real world
 - (d) Model of relation