MCA -07/PGDCA - 07/M.Sc.IT-07

Fundamentals of Database Management System

(MCA/PGDCA/M.Sc. IT -11/12/16/17)

Second Semester, Examination, 2019

Time : 3 Hours   **Maximum Marks : 80**

Note : This paper is of Eighty (80) marks diveded into three (03) sections AB and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section –A

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

(2 x 19 = 38)

1.   Explain the role of Database designers and capabilities of good DBMS.

2.   What is normalization and explain 1NF and 2NF.

3.   Explain Compound Conditions and logical operators with example.

4.   Define following
Entity Set, Data and information, Attribute, Degree and Domain, Relationship Set

Section – B

(Short- answer- type questions)

Note : Section 'B' contains eight (08) short answer type questions of Eight (08) marks each. Learner are required to answer any four 04 questions only.

(4 x 8 =32)

1. Define Candidate and primary key with example

2. Explain record base logical model with example.

3. Differentiate between fixed length records and variable length records.

4. What is primary file organization?

5. Write a note on sophisticated users and End users.

6. Define following in SQL with example

   SELECT, WHERE, INSERT

7. Explain Aggregate function with example.

8. What is the difference between order by and group by statement?

Section –C

(Objectiove-type questions)

Note : Section 'C' contains ten objective type questions of one (01) mark each. All questions of this section are compulsory. **(10 x 1 = 10)**

1. 'AS' clause used in SQL for

   (a) Selection Operation

   (b) Rename Operation

   (c) Join Operation

   (d) Projection Operation

2. In any relation if every non- key attribute is functionally dependent on the primary key, then the relation will be in
   (a) 1NF
   (b) 2NF
   (c) 3NF
   (d) BCNF

3. A transaction completes its execution is said to be
   (a) Committed
   (b) Aborted
   (c) Rolled back
   (d) Failed

4. For a weak entity set to be meaningful, it must be associated with another entity set, called the
   (a) Identifying set
   (b) Owner set
   (c) Neighbour set
   (d) Strong entity set

5. Which one of the following is used to define the structure of the relation, deleting relations and relating schemas?
   (a) DML (Data Manipulation Language)
   (b) DDL (Data Definition Language)
   (c) Query
   (d) Relational Schema

6. DBA Stands for
   - (a) Data Bank Access
   - (b) Database Access
   - (c) Data Bank Administration
   - (d) Database Administration
7. Which of the following are the properties of entities?
   - (a) Groups
   - (b) Table
   - (c) Attributes
   - (d) Switchboards
8. Which one is lowest level data model?
   - (a) Physical Data Model
   - (b) Logical Data Model
   - (c) External Data Model
   - (d) None
9. Data Items grouped together for storage purpose are called a _____
   - (a) Record
   - (b) Title
   - (c) List
   - (d) String
10. The syntax of a user query is verified by _____
    - (a) Query optimizer
    - (b) DBA
    - (c) Parser
    - (d) None

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