

Roll No.

Total Pages : 3

PMCA/M-20

10624

DATABASE MANAGEMENT SYSTEM

Paper–CS-DE-14

Time Allowed : 3 Hours]

[Maximum Marks : 80

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Explain the following : 2×8=16
- (a) Write a note on Database Administrator.
 - (b) What are the different DBMS functions?
 - (c) State foreign key with the help of an example.
 - (d) Differentiate between Entity type and Entity set.
 - (e) Discuss different types of Functional dependency.
 - (f) What do you mean by Indexes in SQL?
 - (g) Why forms are designed in MS-Access?
 - (h) Write the features of MS-Access.

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UNIT-I

2. A major objective of the ANSI-SPARC architecture is to provide data independence. 16
3. (a) What is database language and sub-language? With example, explain different type of database interfaces. 8
- (b) Define Database Management System (DBMS). How DBMS is different from manual Data processing? 8

UNIT-II

4. What is ER diagram? Outline the symbolic notation used to design an ER diagram. Draw an ER diagram of online book store. 16
5. (a) What is role name and recursive relationship? Write different types of relationships and mapping cardinalities. 8
- (b) Differentiate between Network and Hierarchical data models. 8

UNIT-III

6. (a) What is Relational Algebra? Enlist and explain the fundamental operations of relational algebra. 8

- (b) Explain Alter, Update and Drop SQL statements with syntax and supportive example. 8
- 7. State the need for normalization of a Database and explain the various normal forms (i.e. 2nd, 3rd and BCNF) with suitable examples. 16

UNIT-IV

- 8. (a) What data types are supported in MS-Access to create table? 8
- (b) Explain the steps to create table in Design view. 8
- 9. What do you mean by Reports? What are the uses of reports? Discuss the procedure of report generation in MS-Access. 16