

K-9/2051
DATABASE MANAGEMENT SYSTEM
Paper-PGDCA-201

Time : Three Hours]

[Maximum Marks : 70

Note : Attempt *two* questions each from Section A and B.
Section C will be compulsory.

SECTION-A

- I. Define DBMS. Explain the components of DBMS. 10
- II. What is data independence? Explain logical data independence and physical data independence with respect to three layer architecture of DBMS. 10
- III. Compare the network data model with the hierarchical data model. 10
- IV. How weak entity set, strong entity set, attributes, and relationship are represented in E-R diagram ? Explain with example. 10

SECTION-B

- V. Explain first 3 normal forms of database. 10

- VI. What is database integrity constraints? Explain entity integrity, referential integrity, and domain integrity. 10
- VII. What is database security? Explain various methods used for implementing database security. 10
- VIII. What is the use of SELECT statement of SQL? How this statement is used to get selected columns, selected rows, or both. 10

SECTION-C
(Compulsory Question)

- IX. (a) What is role of DBA?
(b) What is the use of DDL?
(c) Define candidate key.
(d) What is foreign key?
(e) What is generalization?
(f) Explain projection operation in relational algebra.
(g) Define functional dependency.
(h) What is database recovery?
(i) What is lost update in concurrency?
(j) How view is created using SQL commands.
- (10×3=30)
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