



ED-1010

PGDCA 2nd Semester
Examination, May-June 2021

PGDCA - 107

Database Management System

Time : Three Hours] [*Maximum Marks* : 100

Note : Answer any **two** parts from each question. All questions carry equal marks.

1. (a) What do you understand by data, information and knowledge? Also explain the concept of DBMS.
- (b) Explain various types of database languages in detail.
- (c) Write short notes on any **two** of the following :
 - (i) Database Administration roles
 - (ii) Importance of data dictionary
 - (iii) Relational data model

(2)

2. (a) What do you mean by ER-model? Explain entity attributes and relationships with example.
(b) Draw an E-R diagram for library management system.
(c) Explain the following with example :
 - (i) Primary key
 - (ii) Candidate key
 - (iii) Super key
 - (iv) Foreign key
 - (v) Unique key

3. (a) Explain relational algebra and its concept with example.
(b) Explain the concept of the domain relational calculus.
(c) Explain simple and complex queries using relational algebra.

4. (a) What is decomposition? Explain functional dependencies with example.
(b) What do you mean by normalization? Explain 1NF, 2NF and 3NF with suitable example.
(c) Differentiate between BCNF and 3NF.

5. (a) Explain DDL, DCL and DML with suitable example.

(3)

- (b) Explain management of roles and granting roles and privilege in DBMS.
 - (c) Explain the following with example :
 - (i) Order by clause
 - (ii) Join clause
 - (iii) Group function
 - (iv) Where clause
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