

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9 Sub. Code :

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Exam. Code :

1	2	1	9
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PGDCA 1st Semester
(2124)

DATABASE MANAGEMENT SYSTEM

Paper : PGD-1103

Time Allowed : Three Hours] [Maximum Marks : 60

Note :— Candidate is required to attempt **FIVE** questions in all including Question No. 9 (Which is compulsory) and attempt remaining **FOUR** questions by selecting **ONE** question from each Section.

SECTION—A

1. Differentiate between :
 - (a) Database vs file oriented approach.
 - (b) Network and relational data model. 12
2. Explain the components of DBMS along with the architecture of Database Management Software. 12

SECTION—B

3. Elaborate the concept of normalization differentiating 1NF, 2NF and 3NF with suitable examples. 12

4. Outline various password related threats in database security highlighting granting the significance of granting and revoking privileges and roles for database security. 12

SECTION—C

5. Write SQL command to :
- (a) Create table student (stuid, name, gender, class, marks, attendance, department, city and date of birth).
 - (b) Insert at least 5 records in the table.
 - (c) Select students with city Patiala and attendance less than 75%. 12
6. Write notes with example on :
- (a) Group function
 - (b) Date function
 - (c) Aggregate function. 12

SECTION—D

7. What do you understand by a transaction ? Explain the functionality of commit and rollback writing appropriate SQL commands. 12
8. Define the following :
- (a) Equi join
 - (b) Union
 - (c) Nested query
 - (d) Creating and altering views. 12

Compulsory Question

9. (a) List major symbols used in ER diagram. 2
- (b) Outline the advantages of DBMS. 2
- (c) Define relation calculus. 2
- (d) Write about log based recovery. 2
- (e) What is the relevance of a null value ? 2
- (f) Write about advantages of views. 2