Code No. : B02/217

Second Semester Online Examination, May-June, 2022

PGDCA

Paper II

DATABASE MANAGEMENT SYSTEM

Time : Three Hours] [Maximum Marks : 100

Note : Part A and B of each question in each unit consist of 'very short answer type question' which are to be answered in one or two sentences. Part C 'Short answer type' and D 'Long answer type' of each question should be answered within the word limit mentioned.

UNIT-I

- 1. (A) Define data model. 2
 - (B) What is DBA ?
 - (C) Explain various purposes of DBMS.

(word limit 200-250) **4**

OR

Explain various views of data in DBMS.

(D) Explain Database System structure with suitable diagrams.(word limit 400-450) 12

P.T.O.

2

OR

Explain the following :

(i) Transaction management,

(ii) Storage Management.

UNIT-II

2. (A) What is Entity ?

2

- (B) Define relationships of entities. 2
- (C) Explain E-R model as a tool for conceptual design entities. *(word limit 200-250)* **4**

OR

Explain generalization in DBMS.

(D) Draw on ER diagram of library management system and explain.

(word limit 400-450) 12

OR

Explain the following :

- (i) Converting on ER Model into relations scheme.
- (ii) Concept of keys.

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UNIT-III

- 3. (A) Define select operation of relational algebra. 2
 - (B) What is embedded query language.
 - (C) Explain tuple relational calculus.

(word limit 200-250) **4**

2

OR

Explain functional dependency with example.

(D) Explain the following with example :

(i) Outer join,

(ii) Inner join,

(iii) Self jon.

(word limit 400-450) **12**

OR

Discuss the simple and complex queries using relational algebra in detail.

UNIT-IV

4. (A) What is functional dependency? 2

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- (B) What do you mean by decomposition? 2
- (C) Explain denormalization with example.

(word limit 200-250) 4

OR

Explain normalization concept in logical model.

 (D) What do you mean by normal forms ? Explain 1NF, 2NF and 3NF with suitable example. (word limit 400-450) 12

OR

Explain the following with example :

(i) Multi valued dependencies,

- (ii) Boyle codd normal form,
- (iii) Join dependencies.

UNIT-V

- **5.** (A) Define DML. **2**
 - (B) Define the use of between clause. 2
 - (C) Explain the group by and order by clause in SQL queries.

(word limit 200-250) 4

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OR

Explain Triggers and security in SQL.

(D) Explain the following :

(i) DDL,

(ii) DCL,

(iii) Granting Roles and Privilege.

(word limit 400-450) **12**

OR

Give the SQL Query for the following :

- (i) Creak table college (Cname, city, phone)
- (ii) Add a column 'Address' in table college.
- (iii) Display details of the college of the city Durg and Raipur.