

**1811090101020001**  
**EXAMINATION MARCH-APRIL 2024**  
**POST GRADUATE DIPLOMA IN COMPUTER**  
**APPLICATION (FIRST SEMESTER)**  
**DATABASE MANAGEMENT SYSTEMS(DBMS)**  
**- LEVEL 2**

[Time: As Per Schedule]

[Max. Marks: 70]

**Instructions:**

**1. Fill up strictly the following details on your answer book**

- a. Name of the Examination : **POST GRADUATE DIPLOMA IN  
COMPUTER APPLICATION (FIRST SEMESTER)**
  - b. Name of the Subject : **DATABASE MANAGEMENT SYSTEMS  
(DBMS) – LEVEL 2**
  - c. Subject Code No : **1811090101020001**
2. Sketch neat and labelled diagram wherever necessary.
  3. Figures to the right indicate full marks of the question.
  4. All questions are compulsory.

Seat No:

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Student's Signature

**Q.1 Attempt any 2.**

**14**

[A] Explain levels of Data Abstraction provides by DBMS.

[B] Define DBMS. What is RDBMS? Explain structure of relational database.

[C] Discuss types of database users in detail.

**Q.2 Attempt any 2.**

**14**

[A] Explain various types of key constraints with proper example.

[B] Give example and explain - (1) Domain constrains and (2) NULLconstraints

[C] Explain referential integrity constraints. Explain reference key giving  
Example.

**Q.3 Do as directed.**

**14**

[A] Discuss insertion anomaly of bad database design. Also discuss the  
Solution for such anomalies.

[B] Explain functional dependency. Explain full functional dependency and Partial functional dependency giving suitable example.

**OR**

[B] Explain 3rd Normal Form giving proper examples.

**Q.4 Do as directed.**

**14**

[A] (1) Explain complete syntax of 'CREATE TABLE' statement.

(2) Write SQL statement to create table Department and Employee with Following constraints.

- Attributes for Department are – (Department Code, Department Name, Location)
- Attributes for Employee table are: (Employee ID, Employee Name, Age, Department Code)
- Department Code is a primary key of Department table.
- EmployeeID is a primary key of Employee. Table.
- Department Code in Employee table is a foreign key referring to Department Table.
- EmployeeName must not be null.
- Age of employee must be greater than 21.

[B] Explain 'ALTER TABLE' statement with all possible clauses.

**Q.5 Do as directed.**

**14**

[A] Explain 'group by' and 'having' clauses for SQL SELECT statement with Proper example. Also Compare use of 'Where' and 'having'.

**OR**

[A] What is DML? List various DML statements. Explain 'UPDATE' statement Giving example of All possible clauses.

[B] Table containing the information regarding the PGDCA 1st semester students is as given below Student (Roll No, Name, Division, City, Special-Subject, Percentage)

Write SQL statements for followings

- 1) Find total number of students.
- 2) List name and percentage of all students.
- 3) Find the name of students having percentage less than 50.
- 4) List the name of student with highest percentage.
- 5) List the name of the students having Special-Subject as 'DBMS'.
- 6) List all Students from city 'Surat'.
- 7) Set value of division as 'A' for all students.

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