0101E940 Candidate's Seat No :_____

PGDCSA Sem.-1 Examination
Relational Database Mgmt Systems
January-2024

Time : 3-00 Hours] [Max. Marks : 50

SECTION – I

Q-1 Attempt the following: **[08]**
  (i) Define data abstraction. Discuss ANSI/SPARC architecture of DBMS with appropriate diagrams.
  (ii) Define Attribute. Explain various types of attributes used in ERD.
  OR
Q-1 Attempt the following: **[08]**
  (i) Explain ERD and its representation notations used in Chen's diagram with example.
  (ii) Define RDBMS. List down Codd's rules.

Q-2 (i) Discuss concept of Generalization and Specialization with suitable examples. **[08]**
  (ii) Explain Primary key, Composite key and Foreign Key with appropriate examples.
  OR
Q-2 Draw an ER diagram for the following system using Crow's foot notation. **[08]**
  Production tracking is important in many manufacturing environments (e.g., the pharmaceuticals industry, children's toys, etc.). Design ER diagram to show important information in the tracking of production. Also show the relationships between production-lots (or batches), individual production units, and raw materials supplied by Supplier.

Q-3 Explain following terms used in RDBMS with suitable examples. (Any **Three**) **[09]**
  (i) Entity cardinalities
  (ii) Hierarchical data model
  (iii) Relation Schema
  (iv) Referential Integrity

SECTION – II

Q-4 Write short notes on: **[08]**
  i) DML commands of SQL
  ii) Normalization
  OR
Q-4 Attempt the following: **[08]**
  (i) Explain DDL commands of SQL with suitable example.
  (ii) Discuss the Armstrong's axioms.

Q-5 Compare the followings by giving suitable examples. **[08]**
  i) Alter table and Update table
  ii) Group by and Order by

  OR
Q-5 Attempt the following: **[08]**
  (i) Discuss *drop table* command used in RDBMS. Also discuss the role of referential integrity in dropping the data table.
  (ii) Explain JOINs used in RDBMS.

Q-6 Answer the following: (Any **Three**) **[09]**
  i) Explain aggregated functions used in SQL using suitable examples.
  ii) Define Relational Algebra and explain any three relational operators with examples.
  iii) Define Metadata. Define and describe Data Dictionary in detail.
  iv) Write a short note on *View* in RDBMS.

———✕———