

Roll No. ....

Total Pages : 2

**GSQ/D-21**

**1086**

**COMPUTER**

(Fundamentals of Database Systems)

Paper-I

Time : Three Hours]

[Maximum Marks : 40

**Note :** Attempt *five* questions. Q. No. 1 is compulsory. Select *one* question from each unit. All questions carry equal marks.

**Compulsory Question**

1. (a) Differentiate Data and information.
- (b) Discuss types of users in data base system.
- (c) Define strong and weak entity and give example of each.
- (d) Define Mapping and discuss simple and complex mapping. 8

**UNIT-I**

2. What is a Data base, explain its advantages over traditional file system ? 8
3. (a) What are various elements of a data base system ?
- (b) What is DBMS, explain its functioning ? 8

## UNIT-II

4. Explain Physical model of Database or Architecture of Database system, discuss its three views and their associated mappings. 8
5. (a) Discuss VDL, DDL, DML.  
(b) What is Data Independence ? Discuss Logical and physical data independence. 8

## UNIT-III

6. (a) Define Entity, Attribute, Degree and Cardinality.  
(b) Discuss Record based Data model and Conceptual Model. 8
7. What is E-R diagram, write its symbols and make an E-R diagram for Library system ? 8

## UNIT-IV

8. Explain Relational Data model with its properties. 8
  9. (a) Define Primary key, Secondary key, Super key and Alternate key.  
(b) What is a Constraint ? Discuss Various constraints. 8
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