

Roll No. ....

(011/17-I)

**5236**

**B.A./B.Sc. EXAMINATION**

(Fifth Semester)

**INTRODUCTION TO DATABASE SYSTEM**

**Second Paper**

*Time : Three Hours    Maximum Marks :*  $\begin{cases} \text{B.Sc.: 30} \\ \text{B.A. : 20} \end{cases}$

**Note :** Q. No. 1 is compulsory. Attempt *Five* questions in all, selecting *one* question from each Unit in addition to compulsory Q. No. 1. All questions carry equal marks.

1. (a) What a data, information and records ?  
How they are different to each other ?  
Give example of each.
- (b) What are limitations of file based approach ?

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- (c) How data independence is beneficial ?
- (d) What are entity types and its attributes ?
- (e) What is domain and range ? Give the example of each.
- (f) What is a key constraints ?

### Unit I

- 2. (a) How database approach is better than file processing ? Explain with examples.
- (b) Explain the different levels of database users.
- 3. (a) What is DBMS and explain its components with neat and clean diagram ?
- (b) What are the responsibilities of database administrator and designer ?

### Unit II

- 4. (a) What is database schema ? Explain three levels of database system architecture with mapping.

- (b) How different model is helpful in design of database system ?
5. (a) How data independence is achieved ? Explain logical and physical data independence with suitable examples.
- (b) What is model and system ? What is conceptual molding ?

### Unit III

6. What is an E-R model and Entity set ? Draw an E-R model of a University system and explain all its entities, attributes, relationships, keys etc.
7. How Hierarchical and Network model are used in design database system ? Explain the advantages and disadvantages Hierarchical and Network Model.

#### Unit IV

8. How relational model better than hierarchical and network model of database system.
9. Write short notes on the following :
  - (a) Primary Key
  - (b) Client-Server architecture
  - (c) Integrity constraints.