5236

B. A./B. Sc. EXAMINATION

(Fifth Semester)

COMPUTER SCIENCE

Second Paper

Introduction to Database Systems

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

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Attempt *four* more questions by selecting *one* question from each Unit.

1. (a) What do you mean by Record ?

   (b) What is meant by DBMS ?

   (c) Describe the term candidate key with example.

(d) Define weak entity with the help of a suitable example.

(e) What do you mean by Data ?

(f) Explain Base Table.

Unit I

2. What do you mean by Database ? Describe the advantages of DBMS over Traditional File System.

3. What do you mean by Database Administrator ? Discuss the responsibilities of Database Administrator.

Unit II

4. What do you mean by data model ? Discuss record based data model and object based data model.

5. Explain three levels of database Architecture by drawing diagram. Also explain data independence. Discuss various types of data independence.

Unit III

6. Explain Simple and Composite Attributes, Single valued and Multi-valued attribute, Stored and Derived Attributes by taking example.

7. Draw an ER diagam for a system of your own choice. Also explain the Relationships and Constraints used in this ER diagram.

Unit IV

8. What do you mean by a Relation ? Give an example. Also explain the properties of a relation.

9. Explain Domains and Integrity constraints in a relational database by taking example.