COURSE CODE:	**IGIT– 202-CR4**
COURSE TITLE:	**DATABASE MANAGEMENT SYSTEMS**
CREDITS	**4+2 = 06**

UNIT-I

Introduction, Traditional File processing system, drawback of traditional file processing system, evolution of data base system, advantages & disadvantages of DBMS.

Basic concepts, database and database users, characteristics of database, the three-level architecture for a DBMS, components of a DBMS, classification of DBMS users.

UNIT-II

Data modeling using the entity relationship approach, relational model concepts, relational database, Introduction to relation algebra. Network and Hierarchical models

UNIT-III

File Organization and Indexing concepts.

Database decomposition: Lossless join property, relational data base design, functional dependencies. Concept of Keys, Primary key, Super key, Foreign key, candidate key

Normalization for relational database: Normal forms (1NF, 2NF, 3NF, 4NF, BCNF).

UNIT-IV

Relational database manipulation: SQL-A relational database language, data definition in SQL, data manipulation in SQL, views and queries in SQL, specifying constraints and indexes in SQL, SQL functions and joins, Sub Queries in SQL

REFERENCES:

1. Date, C.J.” An Introduction to Database System”, Narosa publications house, Delhi
2. Elmasri and Navathe,” Fundamentals of Database System”, Addison Wesley, N.Y.
3. Bipin Desai,”An Introduction to Database Concepts”, Galgotia publications, N. Delhi
4. SQL The Complete Reference, 3rd Edition James R Groff, Paul N. Weinberg, AndyOppel(Mcgraw Hill)