B. Sc. IT (HONS.): 5th Semester						
Course Title	**Course Code**	**Credits- 06**			**Total Marks- 90**	
		Theory	**Tutorial**	**Practical**	**Theory**	**Practical**
Database Management System	BIT520C1	04	Nil	02	**60**	**30**

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, DBMS facilities, structure of a DBMS.

UNIT-II

Data model classification: Network and Hierarchical models, data modeling using the entity relationship approach, relational model, relational database, relation algebra& tuple calculus.

UNIT-III

Database decomposition: Lossless join property, relational data base design, functional dependencies.

Normalization for relational database: Normal forms(1NF, 2NF, 3NF, 4NF, BCNF, 5NF).

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(ORACLE),creating triggers, stored procedures, functions & cursors in PL/SQL.

Note: ***The Practical Component shall be based on the Unit-I to Unit-IV***

REFERENCES:

1. Date, C.J.,"An Introduction to Database System", Narosa publications house, n. Delhi
2. Elmasri and Navathe,"Fundamentals of Database System", Addison Wesley, N.Y.
3. BipinDesai,"An Introduction to Database Concepts", Galgotia publications, N. Delhi