Teaching Plan

Name of the Faculty: Dr. Bhavna Gupta

Name of the Course: B.Sc. (H) Computer Science

Semester : IV Sec (if any): B

Title of the Paper : Database Management Systems (DBMS)

Teaching Outcome : The basis of the course is to teach students about importance of management of database against traditional file management. ER, EER modelling of relational modelling is described with examples. The students will be able to perform normalization of the database, indexing Structure of the database and various SQL operations with different constraints at the end of the course.

Month	Topics Covered (Theory)	Practical Covered	Reference
January	• Databases and Database Users • Database System Concepts and Architecture • Data Modeling Using Entity-Relationship (ER) Model	Structured Query Language (Create Schema, Table, Various Constraints, Select Commands)	[1]
Februrary	• Data Modeling Using Enhanced Entity Relationship (EER) Model • Relational Database Design by ER and EER to Relational Database Mapping • The Relational Database Model and Relational Database Constraints	1-20 (University Guidelines Queries)	[1]
March	• Relational Algebra • Basics of Functional Dependencies and Normalization for Relational Databases • Introduction to Transaction Processing, Concepts and Theory	20-42 (University Guidelines Queries)	[1]
April	• Indexing Structures for Files • Revision of Topics and Previous Years Question Papers Solving • Assignment with classroom presentation	Revision, Queries on Other Databases	[1]

Ref [1]: R. Elmasri, S.B. Navathe, Fundamentals of Database Systems (7th Edition), Pearson Education

Regular tests and Assignments were given throughout the Semester to assess the understanding of taught topics.