

CORE COURSE –IV - APPLIED DATABASE SYSTEMS

Objective: *To teach students about data storage, retrieval, data base design; Introduce modern developments / concepts in data management.*

UNIT I

Introduction to Database systems - Database System Architecture – Physical data organization.

UNIT II

Relational query language SQL.- Entity-Relational model – Enhanced ER model.

UNIT III

Introduction to database design & Normalization - Query processing – Query Optimization.

UNIT IV

Transaction processing – Concurrency control – Database recovery -Database security.

UNIT V

Object oriented databases- Object Relational databases – Parallel & distributed database systems – Decision support systems – Emerging Database technologies –Introduction to MySQL.

TEXT BOOK:

1. **S.K.Singh**, Database systems – Concepts, design and application, First edition , Pearson education, 2006 [**Unit-1** :(Chapters 1,2,3,5); **Unit-2** : (Chapters 5,6,7); **Unit-3** (Chapters 8,10,11); **Unit-4** (Chapters 12,13,14); **Unit-5** (Chapters 15,16,17,18,19,21, 27)]

REFERENCE BOOK:

1. **Date.C.J**, An Introduction to database systems, Eight edition, Pearson Education, India, 2003