

CA526 DATA BASE MANAGEMENT SYSTEMS

Prerequisites:

CA521 Programming Methodology, CA522 Data and File Structures, CA523 Operating Systems.

Aim: To teach database theory and applications.

Course Content:

Lecture:

Introduction: Aims and Objectives, Technology involved and current uses of the technology. Data

Models: Entity-Relationship model, Network model, Hierarchical model.

Database design: Normalization principles and their uses. Secondary data storage and retrieval techniques.

Query Processing: Studies on query processing strategies and cost estimation.

Transaction Processing: Defining Properties and studies on recovery and concurrency. Security and Integrity.

Distributed Databases: Introduction, Issues on design, concurrency, recovery, deadlock handling and coordinator selection.

Practical:

1. Practice on database designs and SQL programming.
2. One or Two mini-projects on design and development of database applications.

References:

1. H. F. Korth and A. Silberschatz: Database Systems & Concepts, McGrawHill Publications.
2. R. Elmasri, S. B. Navathe: Fundamentals of Database Systems, Benjamin/Cummings Publishing Company.
3. Stefano Ceri, G. Pellagatti: Distributed Databases Principles & Systems, McGrawHill. Software Systems:
Oracle DBMS and MSACCESS Database Management System.