

MCA SEMESTER – I
MCA – 13 Database Management System

Examination Scheme					
Internal		External		Total	
Th. (Marks)	Pr. (Marks)	Th. (Marks)	Pr. (Marks)	Th. (Marks)	Pr. (Marks)
30	20	70	30	100	50

UNIT – I

BASIC CONCEPTS : Introduction, What is Database System ? What is database ?, Why Database ?, Data independence, The Three levels of the architecture, The External level, The Conceptual level, The Internal level, Mappings, The Database Administrator, Distributed processing.

UNIT – II

DATA STRUCTURE AND CORRESPONDING OPERATORS : Introduction, The Relational Approach, The Hierarchical Approach, The Network Approach, Higher level, operators, Relations, Domains and attributes, Keys, Extensions and Intensions, Traditional set operations, Attribute – names for derived relations, Special relational operations.

UNIT – III

Introduction, The overall approach, The E/R Model, E/R diagrams, Database design with the E/R model, Basic definitions, Trivial and nontrivial dependencies, Closure of a set of dependencies, Closure of a set of attributes, Irreducible sets of dependencies, Non loss Decomposition and functional dependencies, First, second and third normal forms, Dependency preservation, Boyce / Codd normal form, Multi-valued dependencies and fourth normal form, Join dependencies and fifth normal form, A note on normalization.

UNIT – IV

Introduction to FoxPro, Creating a Database File, Listing Contents of a Database File Viewing and Editing Data Modifying Structure and File Utilities, Sorting and Indexing, Reports and Labels, Memory Variables, Creating A Programming File, Running A Program File, Conditional Statements And Loops, Displaying Data With @ command, Inputting Data with @ ... get @ ... Edit, Wizards.

Books :

1. Introduction to Database System à C.J. Date (7th edition) Law Price Edition
2. SQL, PL/SQL à Evan Bayross (2nd edition) BPB
3. Database system concept à Henry F. Korth (3rd edition) TMH

Question Paper Scheme :**Section – I Section – II**

- Q.1 Objective Type Unit I & II (11) Marks Q.4 Objective Type Unit III & IV (11) Marks
Q.2 Unit –I **OR** Q.2 Unit-I (12) Marks Q.5 Unit – III **OR** Q.2 Unit – III (12) Marks
Q.3 Unit – II **OR** Q.3 Unit – II (12) Marks Q.6 Unit – IV **OR** Q.3 Unit – IV (12) Marks