

**MBA – II Semester - III  
Database Management (DM)**

**1. Objective:**

This course is design to impart knowledge of database management. This will help the students in understanding the issues which are required to be addressed at the time of database design and also make them understanding the management issues of database

**2. Course Duration:**

The total hours for teaching this course will be 50 hours which will be divided into 40 sessions of 75 minutes each.

**3. Course Content:**

The course will contain following modules

<b>Module</b>	<b>Module and Sub-Modules</b>	<b>Sessions</b>	<b>Marks(20% of 70 each)</b>
<b>I</b>	File system, Hierarchical, Network, Relational, Entity-relationship model Entity-Relationship model : entity and entity sets, relationship, constraints, E-R diagrams, issues with E-R diagrams, design of tables from schemas, Data Models Association of data, Data model classification, Relational Model Data Views : Data abstraction, instances and schemas, Data models	8	15%
<b>II</b>	Introduction to DBMS DBMS three level, ANSI/SPARC architecture Basic concepts : data, information, metadata, definition of DBMS, entities, attributes, relationships, Data dependency Keys : Super key, Candidate key, Primary key, Alternate key, Foreign key Integrity Constraints: Entity Integrity, Referential Integrity Advantages and disadvantages of DBMS Client/Server Architecture : two and three tier architecture	6	20%
<b>III</b>	Database Languages : Data Manipulation Language (DML), Data Definition Language (DDL) Database system environment and utilities	6	15%

<b>IV</b>	Structure Query Language Data definition : create, alter, drop Data Manipulation : select, insert, update, delete Transaction control : commit, rollback, grant, revoke Query : from table, multiple tables, sub query, functions Virtual tables	12	40%
<b>V</b>	Introduction to recent trends XML, Data warehousing and mining, Distributed database, Multimedia database, Object Oriented Database	8	10%

#### 4. Teaching Methods:

The course will use the following pedagogical tools:

- A. Case discussion covering a cross section of decision situations.
- B. Discussions on issues and techniques of Marketing.
- C. Projects/ Assignments/ Quizzes/ Class participation etc

#### 5. Evaluation:

The evaluation of participants will be on continuous basis comprising of the following elements:

A	Projects/ Assignments/ Quizzes/ Class participation etc	Weightage 10% (Internal Assessment)
B	Mid-Semester examination	Weightage 20 % (Internal Assessment)
C	End –Semester Examination	Weightage 70% (External Assessment)

#### 6. Text Books:

Sr. No.	Authors	Name of the Books	Publisher	Edition & Year of Publication
T1	Mark L. Gillenson	Fundamentals of Database Management Systems	Wiley	Latest Edition
T2	Jeffrey A. Hoffer, Mary Prescott and Heikki Topi,	Modern Database Management systems	Pearson	Latest Edition
T3	Rajesh Narang	Database Management Systems	PHI	Latest Edition

## 7. Reference Books:

Sr. No.	Authors	Name of the Books	Publisher	Edition & Year of Publication
R1	Bipin C. Desai,	Introduction to Database Systems	Galgotia	Latest Edition
R2	C.J. Date, A. Kannan, S. Swamynathan,	An Introduction to Database Systems	Pearson	Latest Edition
R3	Ramez Elmasri, S.B. Navathe	Fundamentals of Database Systems	Pearson	Latest Edition
R4	A. Silberschatz, H.F. Korth, S. Sudarshan,	Database System Concepts	Tata Mc Graw-Hill	Latest Edition
R5	Mark L. Gillenson, et al with Frank miller	Introduction to Database Management	Wiley	Latest Edition
R6	Peter Rob and Carlos Coronel,	Database System Concepts	Cengage Learning	Latest Edition

## 8. List of Journals/ Periodicals/ Magazines/ Newspapers:

Computer Express, Chip, Data Quest,.

**NB:** The Instructor/s (Faculty Member/s) will be required to guide the students regarding suggested readings from Text(s) and references in items 6 and 7 mentioned above.

**9. Session Plan:****Database Management**

<b>Session no.</b>	<b>Topic</b>
<b>1 - 2</b>	File system, Abstraction & Data Integration,
<b>3 - 4</b>	Three Level Architecture Proposal for a DBMS: Mapping between views, Data Independence, Data Associations:
<b>5 - 8</b>	Data Models Classification: Entity-Relationship model: Entities, Relationships, Representation of Entities, Representation of Relationship Set, Generalization & Aggregation Relational Data Model, Network Data Model & Hierarchical Model
<b>9 - 12</b>	Components of a DBMS: Classification of DBMS Users, DBMS Facilities (Database Languages: Data Manipulation Language-DML, Data Definition Language-DDL), Structure of a DBMS
<b>13</b>	Advantages & Disadvantages of a DBMS
<b>14</b>	What is Client/Server Architecture
<b>15 - 17</b>	Keys: Super key, Candidate key, Primary key, Alternate key, Foreign key
<b>18 - 20</b>	Integrity Rules (Constraints)
	Entity Integrity Rule, Referential Integrity Rule
<b>21-34</b>	Structured Query Language (SQL): Data Definition: Create, Alter Drop Data Manipulation: Views: SQL
<b>35 - 40</b>	Introduction to New Trends: XML, Data warehousing and mining, Distributed database, Multimedia database, Object Oriented Database