| Name Of the | Nisha | |
|---|--|--|
| Discipline: | BCA | |
| Semester: | 3rd Sem | |
| Subject: | Fundamentals of Database Systems (BCA-235) | |
| Lesson Plan Duration : 14 weeks | | |
| **Work Load (Lecture/Practical) per week (In Hours):Lecture -03 (Of One Sections) | | |
| | | |
| Week | Topic (including assignment/test) (In Each Section) | |
| 1 | Introduction to DataBase | |
| | Basic Concepts: Data, Information, Record and Files | |
| | Traditional File Based System, | |
| 2 | Systems-File Based Approach | |
| | Limitations of File Based Approach | |
| | DataBase Approach | |
| | Characteristics of Database Approach | |
| 3 | DataBase Management System | |
| | Components of DBMS Environment | |
| 4 | Roles in DataBase Environment-Data and DataBase Administrator | |
| | DataBase Designer, Application Developer and User | |
| | Class Test | |
| 5 | DataBase System Architecture | |
| | Three-Levels of Architecture:- External, Internal and Conceptual | |
| | Schemas, Mapping and Instances | |
| 6 | Data Independence- Logical and Physical Data Independence | |
| | Classification of DataBase Management System | |
| | Centralized and Client Server Architecture of DBMS | |
| 7 | Problems of Unit 1 & Unit -2 | |
| | Class Test | |
| | Data Models-Record Based Data Models | |
| 8 | Object Based Data Models | |
| | Physical Data Models and Conceptual Modeling | |
| | Entity-Relationship | |
| | Model an Introduction | |
| 9 | Entity Types, Entity Sets, Attributes | |
| | Relationship Types, Relationship Instances | |
| | Example of ER Diagram | |
| | Example of ER Diagram | |

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| Week | Topic (including assignment/test) (In Each Section) | |
| 10 | Example of ER Diagram Discussion | |
| | Class Test | |
| 11 | Relational Data Model:-Brief History | |
| | Terminology in Relational Data Structure | |
| | Relations, Properties of Relations | |
| 12 | Keys in Relational Model | |
| | Keys in Relational Model Contd | |
| | Domains, Integrity Constraints over Relations | |
| 13 | Base Tables and Views | |
| | Basic Concepts of Hierarchical Data Models | |
| | Basic Concepts of Network Model | |
| 14 | Problems of ER Diagram | |
| | Problems of Unit 4 | |
| | Discussion of Previous Papers | |