**Name of the Teacher**: Kamna Billus **Class:** BSC (Comp.) –Vth Sem **Subject:** Fundamentals Database Systems

**Lesson Plan**

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| **S No** | **Period** | **Topics to be Covered** | **Academic Activity to be Organized** |
|  | **17-31 July 2017** | Basic Concepts – Data, Information, Records and files. Traditional file Based Approach-Limitations of Traditional File Based Approach, Database Approach-Characteristics of Database Approach, Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, Advantages and Disadvantages of DBMS | General Computer quiz |
|  | **01-31 Aug 2017** | Actors on the Scene - Data and Database Administrator, Database Designers, End users Applications Developers and Workers behind the Scene | On board Test |
|  | **01-30 Sept 2017** | Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level, Database Languages – VDL, DDL, SDL, DML, SQL, Mappings – External/Conceptual and Conceptual/Internal, Instances, Data Independence – Logical and Physical Data Independence | Class level Technical quiz |
|  | **01-31 Oct 2017** | Data Models: High Level, Low Level and Representational – Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Models Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes, Relationships, Constraints, Keys, Degree, Cardinality etc. ER Diagrams of any Database Organization- Inventory System, Payroll System, Reservation System, Online Book Store etc | Oral test |
|  | **01-13 Nov 2017** | Classification of Database Management System, Centralized and Client Server architecture  Relational Data Model:-Brief History, Terminology in Relational Data Structure, Relations, Properties of Relations, Keys – Primary, Secondary, Composite, Candidate, Alternate and Foreign Key, Domains, Integrity Constraints over Relations | Classroom discussion |

**Topics of Assignments/ Class Tests to be given to the Students:**

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| **Assignment 1** | Components of DBMS Environment |
| **Assignment 2** | DBMS Models |
| **Class Test** | DBMS and its architecture, DBMS Models |