Name of the Teacher: Pooja Bajaj Class: BSc CAV II (Paper II)

**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 Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach, | Oral Presentation |
|  | **01-31 Aug 2017** | Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, Advantages and Disadvantages of DBMS, Roles in the Database Environment - Data and Database Administrator, Database Designers, Applications Developers and Users. Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels | Test |
|  | **01-30 Sept 2017** | Schemas, Mappings and Instances, Data Independence – Logical and Physical Data Independence  Classification of Database Management System, Centralized and Client Server architecture to DBMS.Data Models: Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling | Test |
|  | **01-31 Oct 2017** | Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams.  Relational Data Model:-Brief History, Terminology in Relational Data Structure, Relations, Properties of Relations, Keys, Domains, Integrity Constraints over Relations, | Various examples practice in classroom as well as for homework. |
|  | **01-13 Nov 2017** | Base Tables and Views, Basic Concepts of Hierarchical and Network Data Model. | Revision with queries |

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

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| **Assignment 1** | Database Management System (DBMS), Advantages, Disadvantages, Components of DBMS Environment |
| **Assignment 2** | Different topic to each student, thereafter the topics need to be presented by them in class. |
| **Class Test** | Classification of Database Management System, Centralized and Client Server architecture to DBMS. Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams. |