**Post Graduate Govt. College for Girls, Sector-42, Chandigarh**

**Teaching Plan for Bachelors and Post Graduate (First Semester)**

**Session (2020-2021)**

**Class: PGDCA 1st sem**  **Name of the Teacher: Sheenam**

**Subject: Data Base Management System** **Paper: PGD-1103**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 03/11/2020 – 07/11/2020 | Introduction to Database and file oriented approach, Difference between Database and file oriented approach, DBMS Terminology. |
| Week 2 | 09/11/2020 – 12/11/2020 | General Architecture of a Data Base Management Software, Physical structure of DBMS. |
| Week 3 | 16/11/2020 – 21/11/2020 | Data Base Management Software,  Components of DBMS, Advantages and Disadvantages of DBMS. |
| Week 4 | 23/11/2020 – 28/11/2020 | Introduction to Data Models, Entity Relationship Model, Entities, Attributes, E-R Diagrams, Conceptual Design of a relational data base model. |
| Week 5 | 01/12/2020 – 05/12/2020 | Comparison of Network, Hierarchical and Relational Model. Client/Server Architecture-Introduction, advantages ,disadvantages, Comparison with DBMS. |
| Week 6 | 07/12/2020 – 12/12/2020 | Distributed Databases, Structure and Design of Distributed Databases .Advantages and disadvantages of DDBMS. Framework of DDBMS. |
| Week 7 | 14/12/2020 – 18/12/2020 | Relational Model :  Storage organization for Relations, Relational Algebra, Relational Calculus,  Functional dependencies, multivalued dependencies. |
| Week 8 | 21/12/2020 – 26/12/2020 | Data Types, Creating Tables, Creating a Table with data from Another table, Inserting Values into a Table, Updating Column(s) of a Table, |
| Week 9 | 28/12/2020 – 02/01/2021 | Deleting Row(s) from a Table, Dropping a Column, Querying database tables, |
| Week 10 | 04/01/2021 – 09/01/2021 | Concurrency –Introduction, Locking technique, Concurrency control mechanism |
| Week 11 | 11/01/2021 – 16/01/2021 | Database Integrity-Introduction, concepts,  Security, Different types of security mechanism |
| Week 12 | 18/01/2021 – 23/01/2021 | Querying Multiple Tables using Equi-Joins, Cartesian Joins, |
| Week 13 | 25/01/2021 – 30/01/2021 | Normalizations- Introduction, Concept of 1st, 2nd, 3rd, 4th Normal forms with their anomalies. |
| Week 14 | 01/02/2021 – 06/02/2021 | introduction to dead lock, Recovery techniques. |
| Week 15 | 08/02/2021 – 13/02/2021 | Conditional retrieval of rows, Working with Null Values, Matching a pattern from a table |
| Week 16 | 15/02/2021 – 20/02/2021 | Functions: Character Functions, Date Functions, Group Functions, Ordering the result of a Query Aggregate Functions, Grouping the Result |
| Week 17 | 22/02/2021 – 27/02/2021 | Outer Joins, Self-Joins, SET Operators: Union, Intersect, Minus |