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

**Teaching Plan (Even Semester) Session (2019-2020)**

**Class: BCA 4th sem.**   **Name of the Teacher: Sheenam**

**Subject: Database Management System Period: 3rd Period**

**Paper: BCA-16-405 Room No: 202(Wed)**

**101(Thu – Sat)**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 09-01-2020 to 11-01-2020 | **Introduction to File Systems. File Systems vs. DBMS, Characteristics of the Data Base Approach** |
| Week 2 | 13-01-2020 to 18-01-2020 | **Abstraction and Data Integration, Database users, Advantages and Disadvantages of DBMS. Implication of Database approach. Data Base Systems Concepts and Architecture: Introduction to Data Models, Schemas and Instances** |
| Week 3 | 20-01-2020 to 25-01-2020 | **DBMS architecture and Data Independence, Data base languages & Interfaces, DBMS functions and component modules Entity Relationship Model: Entity Types, Entity Sets, Attributes & Keys, Relationships.** |
| Week 4 | 27-01-2020 to 01-02-2020 | **Relationship Types, Roles and Structural Constraints, Design issues, weak entity types, ER Diagrams. Design of an E-R Database Schema, Reduction of an E-R Schema to Tables** |
| Week 5 | 03-02-2020 to 08-02-2020 | **Relational model concepts, Integrity constraints over Relations,**  **Relational Algebra - Basic Operations.**  **Introduction to Network and Hierarchical Data Models.**  **Relational Data Base Design :** |
| Week 6 | 10-02-2020 to 15-02-2020 | **Functional Dependencies, Decomposition, Desirable**  **properties of decomposition, Normal forms based on primary keys .The 12 Rules (Codd’s Rule) for an RDBMS.** |
| Week 7 | 17-02-2020 to 22-02-2020 | **Data Types, Creating Tables, Creating a Table with data from**  **Another table, Inserting Values into a Table, Updating Column(s) of a Table** |
| Week 8 | 24-02-2020 to 29-02-2020 | **Deleting Row(s) from a Table, Dropping a Column, Querying database tables, Conditional retrieval of rows.** |
| Week 9 | 02-03-2020 to 05-03-2020 | **Working with Null Values, Matching a pattern from a table, ordering the result of a**  **Query Aggregate Functions, Grouping the Result of a Query, creation and deletion of Views,COMMIT and ROLLBACK,** |
| Mid Semester Exams (06-03-2020 to 13-03-2020) | | |
| Week 11 | 14-03-2020, 16-03-2020 to 21-03-2020 | **Managing privileges with Grant and Revoke Command Functions: Character Functions, Date Functions, Group Functions** |
| Week 12 | 24-03-2020 to 28-03-2020 | **Querying Multiple Tables using Equi-Joins, Cartesian Joins,**  **Outer Joins, Self-Joins, SET Operators: Union, Intersect, Minus; Introduction to Nested**  **Queries** |
| Week 13 | 30-03-2020 to 04-04-2020 | **Introduction to PL/SQL, The Advantage of PL/SQL, PL/SQL Block Structure,PL/SQL Architecture, Fundamentals of PL/SQL, PL/SQL Data Types, Variables andConstants** |
| Week 14 | 07-04-2020 to 11-04-2020 | **Scope and Visibility of a Variable, Assignments and Expressions, Operator Precedence,** |
| Week 15 | 15-04-2020 to 18-04-2020 | **Conditional and Iterative Control, Cursor** |
| Week 16 | 20-04-2020 to 24-04-2020 | **Exception Handling in PL/SQL; Predefined Exceptions,**  **User Defined Exceptions.** |
| Week 17 | 27-04-2020 to 02-05-2020 | **Database Trigger, types of triggers, dropping triggers** |
| Week 18 | 04-05-2020 | **Management in PL/SQL,Implicit/explicit Cursor Attributes** |