**PG. GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Odd Semester (For Ongoing Classes BSc)**

**Session (2021-2022)**

**Class: BSc 5 Sem**   **Name of the Teacher: Ramninder Kaur**

**Subject: Computer Science Period: 2 and 5**

**Paper: A) RDBMS Room: CSc: Lab 2**

**B) Project Management**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 11-08-2021 to 14-08-2021 | Introduction to databases. File system approach and Database approach.Introduction to the relational database. Relational data model. Features, advantages and limitations. Structure of Relational Database systems |
| Week 2 | 16-08-2021 to 21-08-2021 | Interactive SQL : SQL commands; Data Definition Language Commands( create table); Data types, Insertion of data into the tables Data Manipulation Language Commands Viewing of data from the tables; Updating the contents of the table |
| Week 3 | 23-08-2021 to 28-08-2021 | Modifying the structure of the table; Renaming table; Destroying tables.Concepts of Project Management : Concept of a project, Characteristic features of a project, Categories of project, Project life cycle phases |
| Week 4 | 31-08-2021 to 04-09-2019 | Project Management Concepts, Tools and Techniques for Project Management, Introduction of Computerized project management systems, Roles and Responsibilities of a Project Manager. |
| Week 5 | 06-09-2021 to 11-09-2021 | Data Constraints: Types of Data Constraints; Column Level Constraints; Table Level Constraints; Null value concepts; The UNIQUE Constraint; The PRIMARY Constraint; The FOREIGN key Constraint; The CHECK Constraint; Viewing the User Constraint. |
| Week 6 | 13-09-2021 to 18-09-2021 | SQL Operators and Functions: Arithmetic operators, Logical operators, Range searching, Pattern matching; Establishing the Project : Feasibility Report : Raw material survey, Demand study, Technical study, Location study; Financing Arrangements |
| Week 7 | 20-09-2021 to 25-09-2021 | Preparation of Cost Estimates, Finalization of Project Implementation Schedule, Evaluation of the Project Profitability, Fixing the zero date.  Using DUAL, SYSDATE;SQL Functions: Group, Scalar, Aggregate, Numeric, String and Date Functions. |
| Week 8 | 27-09-2021 to 01-10-2021 | Grouping data from tables in SQL :using GroupBy clause and Having clause in select statementSubqueries, Collating Information: Equi Joins, Cartesian Joins, Outer Joins, Self Joins; SET Operators: Union, Intersect, Minus; Nested Queries. |
| Week 9 | 04-10-2021 to 09-10-2021 | Organizing human resource: Delegation, Project organization: Matrix, Task force and Totally projectized organization; Indexes: Creation, Types, Dropping an index; Introduction to Views |
| Week 10 | 11-10-2021 to 16-10-2021 | Manipulating the Base table(s) through views, Rules of DML Statements on Join Views, Dropping a View, Inline Views and Materialized Views. |
| Week 11 | 18-10-2021 to 19-10-2021 | Sequences: Creation, Reference and Alteration; Database Security and Privileges: Grant Command, Revoke Command, Application Privileges Management, COMMIT and ROLLBACK. |
| **Mid Semester Exam (21st October 2021 – 30th October 2021)** | | |  | Organizing the Project: Working of Systems, Design of Systems, Project Work System Design, Work Breakdown Structure, Project Execution Plan, Project Procedure Manual, Project Control System, Planning, Scheduling and Monitoring |
| Week 12 | 01-11-2021 to 06-11-2021 | Project Directions, Coordination and Control: Project Direction, Communications in a Project, Project Coordination, Project Control, Scope/Progress Control, Performance Control, Schedule Control, and Cost Control. |
| Week 13 | 08-11-2021 to 13-11-2021 | PL/SQL-I: 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 and constants, Scope and visibility of a variable, Assignments and expressions, Operator precedence, Conditional and iterative control, SQL within PL/SQL, writing PL/SQL code. |
| Week 14 | 15-11-2021 to 20-11-2021 | PL/SQL-II: Cursor management in PL/SQL, Cursor manipulation, Implicit and Explicit cursor attributes, Exceptional Handling, Subprograms in PL/SQL, Procedure, Functions, and Triggers. |
| Week 15 | 22-11-2021 to 27-11-2021 | Report Writing - I: Characteristics of Reports, Importance of Reports, Types of Reports, Structure and layout of Reports: front matter, main body, back matter;Preparatory Steps to Writing Reports: Evaluation of material, Note making, Organizing material, Principle of organization, Making outline |
| Week 16 | 29-11-2021 to 30-11-2021 | Report Writing- II: Elements of Style; Use of Illustrations: types; Writing the Report: Rough draft, Process of writing, Order of writing, Final draft, Check list for reports;Specimen Reports: technical report |

**Class: BSc/BA 5 Sem**   **Name of the Teacher:RamninderKaur**

**Subject: ITE Paper: Database System and VB .NET**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 11-08-2021 to 14-08-2021 | Introduction to RDBMS: Approaches to Data Management, File System approach vs Database approach |
| Week 2 | 16-08-2021 to 21-08-2021 | Database management - An Evolutionary Phenomenon, Introduction to DBMS, Introduction to the relational database. Relational data model. Features, advantages and limitations. |
| Week 3 | 23-08-2021 to 28-08-2021 | The 12 Rules (Codd’s Rule) for an RDBMS, Relational Database Management System (RDBMS). Introduction to SQL commands. |
| Week 4 | 31-08-2021 to 04-09-2019 | Data Definition Language (DDL), Creating Tables, Creating a Table with data from Another table, Inserting Values into a Table, Updating Column(s) of a Table. |
| Week 5 | 06-09-2021 to 11-09-2021 | Renaming and Destroying tables. , Deleting Row(s) From a Table, Dropping a Column, Modifying the structure of the table. |
| Week 6 | 13-09-2021 to 18-09-2021 | Introduction to Views, Manipulating the Base table(s) through views, Rules of DML Statements on Join Views, Dropping a View , Inline Views, Materialized Views. |
| Week 7 | 20-09-2021 to 25-09-2021 | Data Manipulation and Control-Database Security and Privileges, Grant Command, Revoke Command, Application Privileges Management, Enhancing Performance, Sequences, Maintaining Database Objects, COMMIT and ROLLBACK. |
| Week 8 | 27-09-2021 to 01-10-2021 | Introduction to SQL, Data Types, Querying database tables, Conditional retrieval of rows, Working with Null Values, Matching a pattern from a table, ordering the result of a Query |
| Week 9 | 04-10-2021 to 09-10-2021 | Aggregate Functions, Grouping the Result of a Query, ROLLUP Operation: Getting Sub Totals, CUBE Operation: Getting Cross Tabs, Command Summary. |
| Week 10 | 11-10-2021 to 16-10-2021 | Querying Multiple Tables: Collating Information: Equi Joins, Cartesian Joins, Outer Joins, Self Joins, SET Operators: Union, Intersect, Minus; Nested Queries. |
| Week 11 | 18-10-2021 to 19-10-2021 | Functions, Column Functions: Arithmetic Functions, Character Functions, Date Functions, General Functions, Group Functions.  PL/SQL-I Introduction to PL/SQL, The Advantage of PL/SQL Block Structure, PL/SQL Architecture, Fundamentals of PL/SQL, PL/SQL Data Types, Variables and Constants, Scope and Visibility of a Variable |
| **Mid Semester Exam (21st October 2021 – 30th October 2021)** | | |  | PL/SQL: Assignments, and Expressions, Operator Precedence, Referencing Non-PL/SQL Variables, Built-in-Functions, Conditional and Iterative Control, SQL Within PL/SQL, Writing PL/SQL Code, Composite Datatypes. |
| Week 12 | 01-11-2021 to 06-11-2021 | PL/SQL-II Cursor Management in PL /SQL, Cursor Manipulation, Implicit cursor Attributes, Exception Handling in PL/ SQL , Predefined Exceptions, User Defined Exception. |
| Week 13 | 08-11-2021 to 13-11-2021 | Overview of the visual Studio .NET IDE: Menu Bar and Tool Bar, Solution Explorer, Tool Box, Properties, Displaying and printing Text, Displaying Image, Arithmetic, relational operators, Control structures (branching, looping) , assignment operators. |
| Week 14 | 15-11-2021 to 20-11-2021 | Procedures : Introduction, Modules, classes, sub Procedures, function procedures, passing arguments (pass by value VS pass by reference), Recursion: factorial, Fibonacci series |
| Week 15 | 22-11-2021 to 27-11-2021 | Arrays and Strings: declaring and allocating Arrays, passing Arrays to procedures. Sorting Arrays using Bubble Sort, searching Arrays using Linear Search, Binary Search, String functions |
| Week 16 | 29-11-2021 to 30-11-2021 | Accessing Data with ADO.NET: Understanding ADO.net Object model, architecture, and components, Database, Connecting to and querying an access data source, Creating Applications which can Insert, Delete, and Update information from a database using SQL statements, viewing data using Data Grid View Control |