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

**Teaching Plan Session (2020-2021) for odd sem**

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

**Subject: Computer Science(E) Paper: A)Relational Database Management System B)Project Management**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 03/08/2020 – 08/08/2020 | 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 | 10/08/2020 – 14/08/2020 | Interactive SQL : SQL commands; Data Definition Language Commands( create table); Data types, Insertion of data into the tablesData Manipulation Language Commands Viewing of data from the tables; Updating the contents of the table |
| Week 3 | 17/08/2020 – 22/08/2020 | 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 | 24/08/2020 – 29/08/2020 | Project Management Concepts, Tools and Techniques for Project Management, Introduction of Computerized project management systems, Roles and Responsibilities of a Project Manager. |
| Week 5 | 31/08/2020 – 05/09/2020 | 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 | 07/09/2020- 12/09/2020 | 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 | 14/09/2020- 19/09/2020 | 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 | 21/09/2020- 26/09/2020 | 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 | 28/09/2020- 03/10/2020 | Organizing human resource: Delegation, Project organization: Matrix, Task force and Totally projectized organization; Indexes: Creation, Types, Dropping an index; Introduction to Views |
| Week 10 | 05/10/2020- 10/10/2020 | Manipulating the Base table(s) through views, Rules of DML Statements on Join Views, Dropping a View, Inline Views and Materialized Views. |
| Week 11 | 12/10/2020- 16/10/2020 | Sequences: Creation, Reference and Alteration; Database Security and Privileges: Grant Command, Revoke Command, Application Privileges Management, COMMIT and ROLLBACK. |
| Week 12 | 19/10/2020- 24/10/2020 | 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 13 | 27/10/2020- 30/10/2020 | 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 14 | 03/11/2020- 07/11/2020 | 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 15 | 09/11/2020- 12/11/2020 | 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 16 | 16/11/2020- 21/11/2020 | 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 17 | 23/11/2020- 28/11/2020 | 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 |

**Post Graduate Government College for Girls, Sector-42, Chandigarh**

**Teaching Plan (ODD SEMESTER) 2020-21**

**Class: BSc 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 | 03/08/2020 – 08/08/2020 | Introduction to RDBMS: Approaches to Data Management, File System approach vs Database approach |
| Week 2 | 10/08/2020 – 14/08/2020 | Database management - An Evolutionary Phenomenon, Introduction to DBMS,Introduction to the relational database. Relational data model. Features, advantages and limitations. |
| Week 3 | 17/08/2020 – 22/08/2020 | The 12 Rules (Codd’s Rule) for an RDBMS, Relational Database Management System (RDBMS). Introduction to SQL commands. |
| Week 4 | 24/08/2020 – 29/08/2020 | 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 | 31/08/2020- 05/09/2020 | Renaming and Destroying tables. , Deleting Row(s) From a Table, Dropping a Column, Modifying the structure of the table. |
| Week 6 | 07/09/2020- 12/09/2020 | Introduction to Views, Manipulating the Base table(s)throughviews, Rules of DML Statements on Join Views, Dropping a View , Inline Views, Materialized Views. |
| Week 7 | 14/09/2020- 19/09/2020 | 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 | 21/09/2020- 26/09/2020 | 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 | 28/09/2020- 03/10/2020 | Aggregate Functions, Grouping the Result of a Query, ROLLUP Operation: Getting Sub Totals, CUBE Operation: Getting Cross Tabs, Command Summary. |
| Week 10 | 05/10/2020- 10/10/2020 | Querying Multiple Tables: Collating Information: Equi Joins, Cartesian Joins, Outer Joins, Self Joins, SET Operators: Union, Intersect, Minus; Nested Queries. |
| Week 11 | 12/10/2020- 16/10/2020 | 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 |
| Week 12 | 19/10/2020- 24/10/2020 | 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 13 | 27/10/2020- 30/10/2020 | PL/SQL-II Cursor Management in PL /SQL, Cursor Manipulation, Implicit cursor Attributes, Exception Handling in PL/ SQL , Predefined Exceptions, User Defined Exception. |
| Week 14 | 03/11/2020- 07/11/2020 | Overview of the visual Studio .NET IDE: Menu Bar and Tool Bar, Solution Explorer, ToolBox, Properties, Displaying and printing Text, Displaying Image, Arithmetic, relational operators, Control structures (branching, looping) , assignment operators. |
| Week 15 | 09/11/2020- 12/11/2020 | Procedures : Introduction, Modules, classes, sub Procedures, function procedures, passing arguments (pass by value VS pass by reference), Recursion: factorial, Fibonacci series |
| Week 16 | 16/11/2020- 21/11/2020 | 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 17 | 23/11/2020- 28/11/2020 | 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 DataGridView Control |

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**Post Graduate Government College for Girls, Sector-42, Chandigarh**

**Teaching Plan for Bachelors (FIRST SEMESTER)**

**Session (2020-2021)**

**Class: BA/BSc IT 1st SEM**  **Name of the Teacher: Ramninder Kaur**

**Subject: IT(E) Paper: Computer Fundamentals**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 01/09/2020 – 05/09/2020 | Introduction: characteristics of computer; History of computers; Classification of computers based on size, architecture and chronology; Applications of computers |
| Week 2 | 07/09/2020 – 12/09/2020 | Commonly used terms–Hardware, Software, and Firmware. Types of software: System and Application software; Input, Process and Output, Block diagram of a computer. |
| Week 3 | 14/09/2020 – 19/09/2020 | Representation of information: BIT, BYTE, Memory size; Units of measurement of storage. Types of RAM:EPROM, PROM, EEPROM |
| Week 4 | 21/09/2020 – 26/09/2020 | Removable and non-removable secondary memory: Tapes, Disks, CDROM, DVD, comparison of these devices based on technology and speed. |
| Week 5 | 28/09/2020- 03/10/2020 | Tracks, sectors, cylinders, heads, access time, seek time and latency time. Input/output devices. |
| Week 6 | 05/10/2020- 10/10/2020 | Programming Languages: Generation of Languages; Translators - Interpreters, Compilers, Assemblers and their comparison ASCII and EBCDIC Codes |
| Week 7 | 12/10/2020- 16/10/2020 | Binary, Octal, Decimal and Hexadecimal Number Systems and their Conversion, Integer and Floating Point Representation |
| Week 8 | 19/10/2020- 24/10/2020 | DOS: Booting sequence; Warm and Cold booting; Concept of File and directory. Redirecting command input and output pipes, Wildcard characters |
| Week 9 | 27/10/2020- 30/10/2020 | Types of DOS commands: Internal and External; Internal Commands: DIR, MD, CD, CLS, COPY, DATE,DEL, PATH, PROMPT, REN, RD, TIME, TYPE, VER, VOL; |
| Week 10 | 03/11/2020- 07/11/2020 | External Commands: XCOPY, ATTRIB, BACKUP, RESTORE, FIND, SYS, FORMAT, CHKDSK,  DISKCOPY, LABEL, MOVE, TREE, DELTREE, DEFRAG, SCANDISK, UNDELETE. Batch Files: Introduction to simple batch files; Introduction to CONFIG.SYS andAUTOEXEC.BAT files. |
| Week 11 | 09/11/2020- 12/11/2020 | Windows: GUI, Icons, Toolbar, Control panel, Files and folder management under windows , Accessories, Network Neighbourhood, System Tools, Recycle Bin Overview of UNIX structure, general purpose UNIX commands such as date, echo, cal, bc, pwd, passwd; file and directory commands such as ls, mkdir, cp, mv, rm. |
| Week 12 | 16/11/2020- 21/11/2020 | Process management commands such as ps, kill, nohup, communication commands such as news, mesg, wall. Comparison of main features of DOS, UINUX and Windows Operating Systems. |
| Week 13 | 23/11/2020- 28/11/2020 | Basics of Word Processing: creating, opening, saving, and printing document, Menu Toolbars Editing Text: Copy, Paste, Delete, Move etc., Finding and Replacing Text, Spell Check |
| Week 14 | 01/12/2020- 05/12/2020 | Autocorrect feature, language setting and thesaurus  Formatting: Character, Paragraph and Page formatting, working with indents, Bulleted and numbered lists, adding Headers and Footers, setting up Multiple Columns |
| Week 15 | 07/12/2020- 12/12/2020 | Working with tables: Inserting/creating table using toolbar and drawing, formatting table, adding/deleting rows/columns, Applying borders to tables Clipart: Using clip art, Creating Word Art, Mail merge: Creating merged envelops, creating merged mailing labels Macros: Creating, naming and saving macros, running a macro, suspending a macro, deleting a macro. |
| Week 16 | 14/12/2020- 18/12/2020 | Spreadsheet Software: Worksheet overview: Row, Column, Cells, Menus, creating, opening, saving, and printing worksheet; working with Range Editing information: Entering text, numbers and formulae, AutoSum, AutoFill, spell checking Working with Functions: Statistical, Mathematical and String functions, date and Time functions, Trigonometric functions |
| Week 17 | 21/12/2020- 26/12/2020 | Working with charts: Line graphs, Pie charts, Bar graphs, adding Titles, Legends etc. to charts, Printing Charts Presentation Software: Basic features, selecting design templates, creating, saving and printing a simple presentation, various views, Adding multimedia. |