GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: BCA – 6th semester

**Subject/Paper: Web Designing Using Advanced Tools**

**Paper Code: BCA-361**

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1.** | **January** | **01.01.2025-04.01.2025** | JavaScript: Introduction, Features, Data types, Operators, Statements, Functions, Event Handling, Use of Predefined Object and Methods, |  |
| **2.** | **06.01.2025-**  **11.01.2025** | Frames, Windows, Tables, Images, Links |  |
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| **3.** | **13.01.2025-18.01.2025** | VBScript: Introduction, Features, Variables, Data Types, Numeric and Literal Constants, Arrays, Operators, Subroutine Procedures, Function Procedures, |  |
| **4.** | **20.01.2025-25.01.2025** | Control Statements, Strings, Message and Input Boxes, Date and Time, Event Handlers, Embedding VBScript in HTML |  |
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| **5.** | **27.01.2025-31.01.2025** | Interactivity Tool - Active Script Pages – Introduction, Features, Client-Server Model, Data Types, Decision Making Statements, Control statements, Use of Various Objects of ASP, Various Techniques of Connecting to Database |  |
| **6.** | **February** | **01.02.2025-08.02.2025** | Other Interactivity Tools **-** Macromedia Flash, Macromedia Dreamweaver, |  |
| **7.** |  | **10.02.2025-15.02.2025** | PHP: Basic Introduction and Features  Assignment no 1 |  |
| **8.** |  | **17.02.2025-22.02.2025** | DHTML: Introduction, Features, Events, Dynamic Positioning, Layer Object, Properties of STYLE, Dynamic Styles, Inline Styles, Event Handlers; |  |
| **9.** |  | **24.02.2025-28.02.2025** | Cascading Style Sheets (CSS): Basic Concepts, Properties, Creating Style Sheets; Common Tasks with CSS: Text, Fonts, Margins, Links, Tables, Colors; Marquee; Mouseovers; Filters and Transitions |  |
| **10.** | **March** | **01.03.2025-08.03.2025** | Adding Links; Adding Tables; Adding Forms; Adding Image and Sound; Use of CSS in HTML Documents Linking and Embedding of CSS in HTML Document |  |
| **11.** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **12.** | **17.03.2025-22.03.2025** | Sessional 1  Microsoft FrontPage: Introduction, Features, Title Bar, Menu bar, FrontPage Tool Bar, Style, FontFace and Formatting Bar, Scroll Bars |  |
| **13.** | **24.03.2025-31.03.2025** | XML: Introduction, Features, XML Support and Usage, Structure of XML Documents, Structures in XML, Creating Document Type Declarations,  Assignment no 2 |  |
| **14.** | **April** | **01.04.2025-05.04.2025** | Unit 1 revision |  |
| **15.** | **07.04.2025-12.04.2025** | Unit 2 revision  Sessional 2 |  |
|  | **14.04.2025-19.04.2025** | Unit 3 revision |  |
|  | **21.04.2025-30.04.2025** | Unit 4 revision  Test |  |

\*Vacation as per university calendar

\*Assignments and Class test will be taken as per schedule.

GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: BCA – 6th semester

**Subject/Paper: Advanced Programming with Visual Basic**

**Paper Code: BCA-365**

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1.** | **January** | **01.01.2025-04.01.2025** | Collections: Adding, Removing, Counting, Returning Items in a Collection, Processing a Collection; Working with Forms: Form Properties, Creating, Adding, Removing Forms in Project, |  |
| **2.** | **06.01.2025-**  **11.01.2025** | Multiple Forms, Managing Forms at Run Time, Hiding & Showing Forms, Load & Unload Statements, |  |
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| **3.** | **13.01.2025-18.01.2025** | Drag and Drop Operation**,** Activate & Deactivate events, Form-load event, Example using Forms, Programs in VB using Forms |  |
| **4.** | **20.01.2025-25.01.2025** | Working with Menu: Menu Designing in VB**,** Adding a Menu to a Form, Modifying and Deleting Menu Items, Adding Access Characters, Adding Shortcut Keys, Manipulating Menus using Common Dialog Box, Attaching Code to Events, Creating Submenus, Dynamic Menu Appearance |  |
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| **5.** | **27.01.2025-31.01.2025** |
| **6.** | **February** | **01.02.2025-08.02.2025** | Advanced Controls in VB: Scroll Bar, Slider Control, Tree View, List View, Rich Text Box Control, Toolbar, Status Bar, Progress Bar, Cool bar, Image List |  |
| **7.** |  | **10.02.2025-15.02.2025** | Program Development in VB using Menus and Advance Controls  Assignment no 1 |  |
| **8.** |  | **17.02.2025-22.02.2025** | File Handling & File Controls: Sequential & Random files, Opening and Closing Data Files, Viewing the Data in a File, Performing Operations on a File, Creating a Sequential Data File, |  |
| **9.** |  | **24.02.2025-28.02.2025** | Sequential File, Reading the Data in a Sequential File, Finding the End of a Data File, Locating a File, Reading and Writing a Random File (get, put, LOF, seek). |  |
| **10.** | **March** | **01.03.2025-08.03.2025** | Working with Graphics: Using Paint, Line, Circle, Manipulating Graphics Program Development in VB using Files and Graphics |  |
| **11.** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **12.** | **17.03.2025-22.03.2025** | Sessional 1  Accessing Databases: Data Controls, Data-Bound Controls, DAO, RDO, ADO, |  |
| **13.** | **24.03.2025-31.03.2025** | Creating the Database, Setting Properties, Applying Operations on Database, Viewing the Database, Updating the Database (adding, deleting records)  Assignment no 2 |  |
| **14.** | **April** | **01.04.2025-05.04.2025** | Program Development in VB using Database and Advance Controls  Unit 1 revision |  |
| **15.** | **07.04.2025-12.04.2025** | Unit 2 revision |  |
|  | **14.04.2025-19.04.2025** | Unit 3 revision  Sessional 2 |  |
|  | **21.04.2025-30.04.2025** | Unit 4 revision  Test |  |

\*Vacation as per university calendar

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GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: B SC 2nd Semester (Major)

**Subject/Paper: Web Development**

**Paper Code: B23-CSE-201**

**Course Learning Outcomes(CLO):**

After completing this course, the learner will be able to:

1. learn the basics of web development.

2. understand different types of web pages and websites.

3. implement HTML and CSS for web page designing.

**4.** Understand the design of web crawlers and search engines.

5. to implement the programs based on various web development concepts.

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1** | **February** | **10.02.2025-15.02.2025** | Introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents, Web Clients, Web Servers, Web Browsers; Hypertext Transfer Protocol, URLs; Searching, Search Engines and Search Tools. |  |
| **2** |  | **17.02.2025-22.02.2025** | Web Publishing: Hosting website; Internet Service Provider; Planning and designing website; Web Graphics Design, Steps For Developing website |  |
| **3** |  | **24.02.2025-28.02.2025** | Creating a Website and Introduction to Markup Languages (HTML and DHTML), HTML Document Features & Fundamentals, HTML Elements,  Assignment no 1 |  |
| **4** | **March** | **01.03.2025-08.03.2025** | Creating Links; Headers; Text styles; Text Structuring; Text colour and Background; Formatting text; Page layouts, Images; Ordered and Unordered lists; Inserting Graphics; |  |
| **5** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **6** | **17.03.2025-22.03.2025** | Table Creation and Layouts; Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes, HTML5.  Sessional no 1 |  |
| **7** | **24.03.2025-31.03.2025** | Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, |  |
| **8** | **April** | **01.04.2025-05.04.2025** | Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning, and other useful Style Properties; Features of CSS3. |  |
| **9** | **07.04.2025-12.04.2025** | The Nature of JavaScript: Evolution of Scripting Languages, JavaScript-  Assignment no 2 |  |
| **10** | **14.04.2025-19.04.2025** | Definition, Programming for Non-Programmers, Introduction to Client–Side Programming, |  |
| 11 | **21.04.2025-30.04.2025** | Enhancing HTML Documents with JavaScript. Static and Dynamic web pages |  |
| **12** | **May** | **01.05.2025-10.05.2025** | Unit 1 revision |  |
| **13** | **12.05.2025-17.05.2025** | Unit 2 revision |  |
| **14** | **19.05.2025-24.05.2025** | Unit 3 revision |  |
| **15** | **26.05.2025-31.05.2025** | Unit 4 revision  Test |  |

\*Vacation as per university calendar

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GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: B SC 2nd Semester (Minor)

**Subject/Paper: Programming Methodologies**

**Paper Code: B23-CSE-203**

**Course Learning Outcomes(CLO):**

After learning this course students will be able to:

1. Understand the problem-solving using algorithms and flowcharts.

2. understand the concept of program and debugging.

3. learn the basic programming constructs.

4. understand various programming methodologies.

5. understand the various programming methodologies by implementing these practically.

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1** | **February** | **10.02.2025-15.02.2025** | **Problem Solving**: Understanding the problem, Analyzing the problem, and Identifying the solution. |  |
| **2** |  | **17.02.2025-22.02.2025** | **Tools for Problem-Solving**: Flowcharts and its Symbols. Algorithm designing. Examples of Algorithms with flow chart. Decision Table. |  |
| **3** |  | **24.02.2025-28.02.2025** | **Program**: Concept of a program, Need for writing programs, Characteristics of a good program, Programming style, Documentation, and Program Maintenance. |  |
| **4** | **March** | **01.03.2025-08.03.2025** | **Debugging Programs**: Syntax Errors, Run-Time Errors, Logical Errors. |  |
| **5** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **6** | **17.03.2025-22.03.2025** | Process of conceptualizing a solution to a problem and moving from algorithm to programming. |  |
| **7** | **24.03.2025-31.03.2025** | **General Concepts**: Clarity and Simplicity of Expressions, Use of proper names for Identifiers, Comments, Indentation; and Documentation. |  |
| **8** | **April** | **01.04.2025-05.04.2025** | **Programming Constructs**: Sequence, Selection, and Iteration; Simulation (dry run) of the program for better understanding of algorithm; Comparison and Analysis of Algorithms through simulations. |  |
| **9** | **07.04.2025-12.04.2025** |  |
| **10** | **14.04.2025-19.04.2025** | **Methodologies**: Structured programming, Top-down approach, Bottom-up approach, |  |
| 11 | **21.04.2025-30.04.2025** | Functional programming, Modular programming, and Object-oriented programming. |  |
| **12** | **May** | **01.05.2025-10.05.2025** | Unit 1 revision |  |
| **13** | **12.05.2025-17.05.2025** | Unit 2 revision |  |
| **14** | **19.05.2025-24.05.2025** | Unit 3 revision |  |
| **15** | **26.05.2025-31.05.2025** | Unit 4 revision  Test |  |

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GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: B.C.A. 2nd Semester

**Subject/Paper: Introduction to Web Technologies**

**Paper Code: B23-CAP-202**

**Course Learning Outcomes(CLO):**

After completing this course, the learner will be able to:

1. learn the basics of web development.

2. understand different types of web pages and websites.

3. implement HTML and CSS for web page designing.

4. Understand the design of web crawlers and search engines.

5. implement the programs based on various concepts of web development.

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1** | **February** | **10.02.2025-15.02.2025** | Introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents, Web Clients, Web Servers, Web Browsers; |  |
| **2** |  | **17.02.2025-22.02.2025** | Hypertext Transfer Protocol, URLs; Searching, Search Engines and Search Tools. |  |
| **3** |  | **24.02.2025-28.02.2025** | Web Publishing: Hosting website; Internet Service Provider; Planning and designing website; Web Graphics Design, Steps For Developing website |  |
| **4** | **March** | **01.03.2025-08.03.2025** | Creating a Website and Introduction to Markup Languages (HTML and DHTML), HTML Document Features & Fundamentals, HTML Elements, Creating Links;  Assignment no 1 |  |
| **5** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **6** | **17.03.2025-22.03.2025** | Headers; Text styles; Text Structuring; Text color and Background; Formatting text; Page layouts, Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; |  |
| **7** | **24.03.2025-31.03.2025** | Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes, HTML5  Sessional |  |
| **8** | **April** | **01.04.2025-05.04.2025** | Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, |  |
| **9** | **07.04.2025-12.04.2025** | Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning, and other useful Style Properties; Features of CSS3. |  |
| **10** | **14.04.2025-19.04.2025** | The Nature of JavaScript: Evolution of Scripting Languages, JavaScript-Definition, Programming for Non-Programmers,  Assignment no 2 |  |
| 11 | **21.04.2025-30.04.2025** | Introduction to Client–Side Programming, Enhancing HTML Documents with JavaScript. Static and Dynamic web pages |  |
| **12** | **May** | **01.05.2025-10.05.2025** | Unit 1 revision |  |
| **13** | **12.05.2025-17.05.2025** | Unit 2 revision |  |
| **14** | **19.05.2025-24.05.2025** | Unit 3 revision |  |
| **15** | **26.05.2025-31.05.2025** | Unit 4 revision  Test |  |

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GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: B.C.A. 2nd Semester

**Subject/Paper: Object Oriented Programming using C++**

**Paper Code: B23-CAP-201**

**Course Learning Outcomes(CLO):**

After completing this course, the learner will be able to:

1. learn the input/output statements and functions in C++.

2. get familiar with OOPS concepts along with constructors and destructors in C++ language.

3. Learn the various concepts of operator overloading and inheritance.

4. get familiar with concepts of virtual functions and exception handling in C++ language.

5. implement the programs based on various concepts of C++.

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1** | **February** | **10.02.2025-15.02.2025** | **Input Output in C++**: Unformatted and Formatted I/O Operations. I/O using insertion and extraction operators and streams in C++. |  |
| **2** |  | **17.02.2025-22.02.2025** | **Functions**: Declaration and Definition, return values, arguments, passing parameters by value, call by reference, call by pointer, Recursion, Inline Functions, Function overloading. |  |
| **3** |  | **24.02.2025-28.02.2025** | Pointers, structures, and union in C++. |  |
| **4** | **March** | **01.03.2025-08.03.2025** | **Object-oriented features of C++**: Class and Objects, Data hiding & encapsulation, abstraction, Data Members and Member Functions, accessing class members, empty class, local class, global class,  Assignment no 1 |  |
| **5** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **6** | **17.03.2025-22.03.2025** | Resolution Operator and its Uses, Static Data Members, Static Member Functions, Structure vs Class, Friend function and friend class. |  |
| **7** | **24.03.2025-31.03.2025** | **Constructors and Destructors**: Constructors, Instantiation of objects, Default constructor, Parameterized constructor, Copy constructor and its use, Destructors, Dynamic initialization of objects.  Sessional |  |
| **8** | **April** | **01.04.2025-05.04.2025** | **Operator Overloading:** Overloading unary and binary operators: arithmetic operators, manipulation of strings using operators. |  |
| **9** | **07.04.2025-12.04.2025** | **Inheritance**: Derived class, base class, Accessing the base class member, Inheritance: multilevel, multiple, hierarchical, hybrid; Virtual base class, Abstract class. |  |
| **10** | **14.04.2025-19.04.2025** | Virtual Functions, pure virtual functions; Polymorphism & its types  Assignment no 2 |  |
| 11 | **21.04.2025-30.04.2025** | **Exception Handling in C++**: exception handling model, exception handling constructs - try, throw, catch, Order of catch blocks, Catching all exceptions, Nested try blocks, handling uncaught exceptions. |  |
| **12** | **May** | **01.05.2025-10.05.2025** | Unit 1 revision |  |
| **13** | **12.05.2025-17.05.2025** | Unit 2 revision |  |
| **14** | **19.05.2025-24.05.2025** | Unit 3 revision |  |
| **15** | **26.05.2025-31.05.2025** | Unit 4 revision  Test |  |

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GOVT.COLLEGE FOR GIRLS, PALWAL, KURUKSHETRA

COMPUTER SCIENCE DEPARTMENT

LESSON-PLAN (Session 2024-25) Even Semester

Name of Assistant Professor: Mrs. Pooja

Subject: Computer Science

Class: B.C.A. 4th Semester

**Subject/Paper: Front-end Development**

**Paper Code: B23-CAP-402**

**Course Learning Outcomes(CLO):**

After completing this course, the learner will be able to:

1. understand the basic concept of objects and regular expressions in JavaScript;

2. acquire knowledge of JavaScript events and DOM

3. learn to use forms and BOM in JavaScript;

**4.** get familiar with jQuery

5. Understand the programming of web pages and handling events using JavaScript and jQuery.

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| **Sr. No.** | **Month** | **Week** | **Topics to be covered** | **Remarks**  **if any** |
| **1** | **February** | **10.02.2025-15.02.2025** | **Objects in JavaScript**: Introduction to objects, Type of objects in JavaScript, creating objects, Object methods, Constructor function, Prototype in JavaScript, Inheritance using prototype chain. |  |
| **2** |  | **17.02.2025-22.02.2025** | **Regular Expressions**: Introduction to RegExp, Regular expression usage, Modifiers, RegExp patterns, RegExp methods, String methods for RegExp, Type conversion in JavaScript. |  |
| **3** |  | **24.02.2025-28.02.2025** | **Event handling**: JavaScript events, Event handler, Event flow, Event bubbling and capturing, Event listeners, Event types. |  |
| **4** | **March** | **01.03.2025-08.03.2025** | **Document Object Model (DOM)**: Introduction to DOM, Types of DOM, DOM standards and methods,  Assignment no 1 |  |
| **5** | **10.03.2025-15.03.2025** | Holi vacations |  |
| **6** | **17.03.2025-22.03.2025** | Manipulating documents using DOM, Handling images, Table manipulation, Animation, Node and Node-list handling |  |
| **7** | **24.03.2025-31.03.2025** | **Browser Object Model (BOM)**: Introduction to BOM, DOM vs BOM differences, Window object and methods, BOM navigator, BOM history, BOM location,  Sessional |  |
| **8** | **April** | **01.04.2025-05.04.2025** | BOM timer, Introduction to Cookies, Session and persistent cookies. |  |
| **9** | **07.04.2025-12.04.2025** | **Form Handling**: Introduction to forms, Form processing, Forms object, Accessing data from forms, Form validation, Additional features in forms, Validation APIs |  |
| **10** | **14.04.2025-19.04.2025** | **Introduction to jQuery**: jQuery Syntax, jQuery Selectors, jQuery Events,  Assignment no 2 |  |
| 11 | **21.04.2025-30.04.2025** | jQuery Effects, jQuery HTML, jQuery Traversing, jQuery AJAX, jQuery Misc. |  |
| **12** | **May** | **01.05.2025-10.05.2025** | Unit 1 revision |  |
| **13** | **12.05.2025-17.05.2025** | Unit 2 revision |  |
| **14** | **19.05.2025-24.05.2025** | Unit 3 revision |  |
| **15** | **26.05.2025-31.05.2025** | Unit 4 revision  Test |  |

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