

# GOVT. POST GRADUATE NEHRU COLLEGE, JHAJJAR

## *Department of Computer Science*

### *Lesson Plan*

*Class: BCA 5<sup>TH</sup> sem*

Name of Teacher...**Saurabh Jain**

Subject/Paper- Visual Basic

Sr.No	Weekdays	Subject Matter/ Syllabus
Unit-1	August	Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and eventdriven programming languages, The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window, Form designer, Form layout, Immediate window. Visual Development and Event Driven programming.
Unit-2	September	Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types, User-defined data types, Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators. I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement.
Unit-3	October	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures. Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array. Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection
Unit-4	November	Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Calling procedures, Arguments- passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays. Working with forms and menus : Adding multiple forms in VB, Hiding & showing forms, Load & unload statements, creating menu, submenu, popup menus, Activate & deactivate events, Form-load event, menu designing in VB Simple programs in VB.

Signature

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# GOVT. POST GRADUATE NEHRU COLLEGE, JHAJJAR

## *Department of Computer Science*

### *Lesson Plan*

*Class: B.Sc Physical Science 1st sem*

Name of Teacher...**Saurabh Jain**

Subject/Paper- Computing Fundamentals and C Programming

Sr.No	Weekdays	Subject Matter/ Syllabus
Unit-1	August	Computing Fundamentals: Overview of computing fundamentals principles and history, Generationsof Computers, Major components of Computer, Classification of computers, Applications of computers in various fields. Input/Output Devices, Memory: Concept of primary & secondary memory, Cache Memory, Secondary storage devices. Basics of Networking & Operating System: Introduction to computer networking, Types of Network, Network Topologies, Internet and its applications; Operating system and its functions.
Unit-2	September	Introduction to software development methodologies: Basics of algorithmic thinking and problem-solving strategies. Planning the Computer Program: Problem definition, Program design, Debugging, Types of errors in programming, Techniques of Problem Solving- Flowcharting, Algorithms Introduction to the C programming language: History of C, Importance of C, Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant, Structure of a C Program, printf(), scanf() functions, Operators &Expression,type casting and conversion, operator hierarchy & associativity.
Unit-3	October	Decision making & Branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, go to statement. Decision Making and Looping: While loop, do-while loop, for loop, jumps in loops, break statement, continue statement, nested loops. Functions and Modular Programming Concepts: Standard mathematical functions, input/output: unformatted and formatted I/O functions in C, input functions, output functions, string manipulation functions. User-defined functions: introduction/definition, function prototype, local and global variables, passing parameters, recursion.
Unit-4	November	Arrays & Pointers: Definition,types, initialization, processing an array, passing arrays to functions declaration and initialization of string, Input/output of string data, Introduction to pointers. Advance Concepts of C Programming: Pointers and memory management in C; File input/output operations in C; Dynamic memory allocation and deallocation; Advanced control structures: switch, break, and continue statements. Practical applications of C programming in software development: Algorithmic problem-solving using C programming constructs; Design and implementation of C programs; Debugging and testing techniques for C programs; Best practices and coding standards in C programming.

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# GOVT. POST GRADUATE NEHRU COLLEGE, JHAJJAR

## *Department of Computer Science*

### *Lesson Plan*

*Class: BSc 1st sem*

Name of Teacher...**Saurabh Jain**

Subject/Paper- Web Development-I(24CSC401SE01)

Sr.No	Weekdays	Subject Matter/ Syllabus
Unit-1	August	Introduction to Internet: Overview of Internet, World Wide Web, Evolution and History of WWW; Basic Features; Evolution of Web development. Web Browsers: Web Servers; Hypertext Transfer Protocol; URLs; IP Addresses; Domain Names; Searching and Web-Casting Techniques; Search Engines and Search Tools; Internet Security; The Web Programmers; Toolbox. Web Technologies: Introduction Web Technologies; Introduction to HTML, CSS, and JavaScript; Client-Side vs. Server- Side Scripting
Unit-2	September	Web Publishing: Hosting your Site; Internet Service Provider; Planning and designing your Web Site; Steps for developing your Site; Choosing the contents; Home Page; Domain Names; Creating a Website and the Markup Languages (HTML, DHTML). Web Development: Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts; Lists, Tables; meta element; New HTML5 Form input Types; input and data list elements; auto complete Attribute; Page-Structure Elements; Introduction to DHTML and its features..
Unit-3	October	Brief Introduction to Interactivity tools: CGI; Features of Java; Java Script; Features of ASP; VBScript; Macromedia Flash; Macromedia Dreamweaver; JavaScript: The JavaScript execution environment; The Document Object Model ; Element access in JavaScript; Events and event handling ; Handling events from the Body elements, Button elements, Text box, and Password elements ; The DOM 2 event model ; The navigator object ; DOM tree traversal and modification;
Unit-4	November	Introduction to CSS: Introduction to CSS, Block and Inline Elements, Inline Styles, using internal CSS, using external CSS, How CSS rules cascade, inheritance, external style sheets. CSS3 Basics: CSS selectors, color: foreground color, background color, contrast, opacity; text: Typeface terminology, Specifying Typefaces, fonts; list tables and forms: list-style, table properties, styling forms, styling text input. Layout and positioning: layout: key concepts in positioning elements, controlling the position of elements: relative positioning, absolute positioning, fixed positioning, z-index, float, clear, creating multi column layout with float, fixed width layout, liquid layout, layout grids, Images: controlling size of images in CSS, aligning images using CSS, centering images using CSS, background images, gradients, Media Queries

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