

Discipline Specific Elective -3 : Semester –VI

DSE-3 Web Designing with Java Script

BLOCK – I

Unit-1: Introduction to JavaScript- CoreJavaScript, client side JavaScript, lexical structure-literals, character set, optional semi-colon

Unit-2: Core JavaScript – Data Types, variables, values, statements-expression, compound, declarative, branching ,loops, conditional, comments, identifiers and reserved words

Unit-3: Expressions.-Primary expressions, functions definition, object and arrays initialization, property access, innovation and, object creation expressions, operators – arithmetic, relational, logical, assignment, evaluation, logical operators

BLOCK-II

Unit-4: Objects – creation of objects, querying ,setting, deleting, enumerating and testingproperties, property getters and setters,object attributes, methods, serializable objects

Unit-5: Arrays – creating arrays,, reading, writing, iterating, adding, deleting elements into arrays, sparse arrays, array methods, multi0dimensional arrays,ECMAScript5 array methods, array type, array like objects, string as arrays

Unit-6: Functions – defining, invoking, function arguments and parameters,function as values and name spaces, closures, function properties, methods, constraints, functional programming

BLOCK-III

Unit-7: Classes and Methods – proto types, constructors, augmenting classes, classes and types, java type classes in JavaScript, Object oriented techniques in java script, classes in ECMAScript5, modules

Unit-8: Pattern matching with regular expressions – regular expressions, string patterns, the RegExp Object, JavaScript subsets and extensions – subsets, constants and scoped variables, assignments, iterations, short hand functions, multiple catch clauses, ECMAScript for XML

Unit-9 : Client-Side JavaScript – JavaScript in web browsers- embedding in HTML, client-side frame work, execution of programs, accessibility, security, The Window object –timers, browser’s location, navigation, history, screen information, dialog box, error handling, multiple windows and frames

BLOCK-IV

Unit-10 : Scripting Documents – overview of the DOM, selecting document elements, document structure, attributes, element content, operations on nodes,geometry and scrolling of document and elements, example-generating table of content

Unit-11: ,Event Handling–event handler registration, invocation, handling mouse, text, keyboard events

Unit-12Scripting media and graphics – scripting images, audio,video, SVG scalable vector graphics, Graphics in a <canvas>

PRACTICALS:

List of JavaScript Exercises :

1. . Write a JavaScript program to display the current day and time in the following format.
[Go to the editor](#)
Sample Output : Today is : Friday.
Current time is : 4 PM : 50 : 22
2. Write a JavaScript function that generates all combinations of a string.
Example string : 'dog'
Expected Output :d,do,dog,o,og,g
3. Write a JavaScript program to find the greatest common divisor (gcd) of two positive numbers.]
4. Write a JavaScript conditional statement to sort three numbers. Display an alert box to show the result
5. Write a JavaScript function to check whether an `input` is an array or not.
6. Write a JavaScript function to compare dates
7. Write a JavaScript function to extract a specified number of characters from a string]
8. Write a JavaScript function to format a number up to specified decimal places]
9. Write a JavaScript function to check whether a given value is an valid url or not.]
10. Write a JavaScript program to set the background color of a paragraph using HTML DOM
11. Write a JavaScript program to draw two intersecting rectangles, one of which has alpha transparency.

Expected Output :



12. Write a JavaScript program to list the properties of a JavaScript object