

Govt. of Karnataka, Department of Technical Education
Diploma in Information Science & Engineering

Fifth Semester

Subject: Web Programming

Contact Hrs / week: 4

Total hrs: 64

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	7.2.4	String Methods
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	7.4.2	Selection & Looping Statements
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	7.5.2	Built-in Methods for arrays and Lists
	7.5.3	Examples
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7.7		Methods
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	7.7.2	Local variables
	7.7.3	Parameters
7.8		Classes
	7.8.1	The basics of Classes

	7.8.2	Access Control
	7.8.3	Inheritance
7.9		Code blocks & Iterators
7.10		Pattern matching
	7.10.1	Basics of Pattern Matching
	7.10.2	Remembering matches
	7.10.3	Substitutions

Text book:

1. **Programming the World Wide Web**, 4th edition, Robert W. Sebesta, Pearson Education, ISBN- 9788131724170
2. **Web Programming By Niranjana A**, Sapna Publications

Reference Books:

1. Web Programming – Building Internet Applications, 3rd edition, Chris Bates, Wiley publisher
2. Web Technologies— HTML, JavaScript, PHP, java, JSP, ASP.Net, XML & Ajax – Black Book, Wiley, ISBN : 978-81-7722-997-4
3. PHP A Beginner's Guide --- Vikram Vaswami, TMH publishers. ISBN: 13:978-0-07-014069-1

General Objectives:

1. Understand the concepts of Internet, WWW, Web Browsers, Web Servers, URL's, HTTP, Multipurpose Internet Mail Extensions & Security.
2. Comprehend the concepts of JavaScript & XHTML Documents
3. Appreciate the concepts of Dynamic Documents with JavaScript
4. Understand the concepts of XML
5. Understand the concepts of PHP
6. Understand the concepts Database Access through the Web
7. Comprehend the concepts of Ruby & their applications.

Specific Objectives:

1	Fundamentals
	A Brief Introduction to Internet

	Origins
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	The World Wide Web
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	Uniform Resource Locators
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	Multipurpose Internet Mail Extensions
	Type Specification
	Experimental Documental Types
	The Hypertext Transfer Protocol
	The Request Phase
	The Response Phase
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	Tools for creating XHTML Documents
	Plug-Ins and Filters
	Overview of XML
	Overview of JavaScript
	Overview of Java
	Overview of Perl
	Overview of PHP
	Overview of Ruby
	Overview of Rails
	Overview of Ajax
2	JavaScript & XML Documents
	Learn the JavaScript Execution Environment, DOM & Element Access Using XHTML.
	Learn the Basic Concepts of Event Handling, Events, Attributes & Tags.
	Know about Handling Events from Body Elements, Button Elements, Textbox & password Elements like Focus Event, blur Event, Change Event & Select Event
	Learn the DOM 2 Event Model, Event Propagation & Event handler registration with an Example.
	Know the Concept of The Navigator Object, DOM Tree Traversal and

	Modification
3	Dynamic Documents with JavaScript
	Introduction to Dynamic Documents with JavaScript
	Learn about Positioning Elements & their possible values like Absolute, Relative & Static Positioning.
	Learn the concepts of Moving Elements, Element Visibility, Changing Colors & Fonts, Dynamic Contents, Stacking Elements, Locating the Mouse Cursor, Reacting to the Mouse Click, Slow Movement of Elements & Dragging & Dropping Elements.
4	Introduction to XML
	Learn the Concepts of XML, the Syntax of XML & XML Document Structure
	Know about how to Declare Elements, Declaring Attributes & Declaring Entities in Document Type Definitions
	Learn about A Sample DTD, Internal & External DTDs & Namespaces
	Learn the Concepts of XML Schemas: Definition, Fundamentals, , Defining the Schema Instances , Data types ,Simple Types, Complex types & Validating the Instances of Schemas.
	Learn to Display raw XML Documents & also to display XML Documents with CSS.
5	Introduction to PHP
	Know about the Origins and Uses of PHP, General Syntactic Characteristics, Primitives, Operations and Expressions, Output from an PHP Script.
	Learn the Concepts of Control statements, Arrays, Functions, Pattern Matching, Form Handling,
	Learn about file Handling like Open, close, read, write and locking files.
	A study of Cookies: Introduction to cookies, Support of PHP & also Session tracking in PHP.
6	Database Access through the Web
	Learn to Access the Database with PHP & MySQL: Potential Problems with Special Characters, Connecting to MySQL & Selecting the Database, Requesting MySQL Operations, A PHP/ MySQL Examples
	Learn to Access the Database with JDBC & MySQL, Metadata, with an Examples.
7	Introduction to Ruby
	Know about the Origins and Uses of Ruby.
	Understand the Concepts of Scalar Types & their Operations: Numeric & String Literals, Variables and Assignment Statements, Numeric Operators, String Methods.
	Learn about the Simple Input & Output like Screen Output & Keyboard Input
	Learn the concepts of Control Statements, Control Expressions, Selection & Looping Statements,
	Understand the Fundamentals of Arrays, Hashes, Methods, Classes, Code blocks & Iterators & Pattern matching

Govt. of Karnataka, Department of Technical Education

Diploma in Information Science & Engineering

Fifth Semester

Subject: Web Programming

Max. Marks: 100

Max. Time: 3 Hours

Model Question Paper

Note: 1. Section –I is compulsory.

3. Answer any TWO questions from each remaining Sections.

Marks

Section – I

- | | |
|--|-------|
| 1. a) Fill in the blanks with appropriate word/s | 5x1=5 |
| i. | |
| ii. | |
| iii | |
| iv. | |
| v. | |
| b) Write a note on XHTML document | 5 |

Section – II

- | | |
|--|----|
| 2. a) Explain the phases of HTML | 10 |
| b) What are the advantages of assigning event handlers to event properties | 05 |
| 3. a) Explain the Document Object Model | 5 |
| b) Explain the three possible values of the positioning property | 10 |

4. a) Describe the parameters and action of the setTimeout function 5
- b) Explain the structure of the XML structure 5
- c) Define schema & schema instance with an example 5

Section – III

5. a) Describe the roles of web services 5
- b) How does an XSLT processor use an XSLT style sheet with an XML document? Explain 10
6. a) Explain the various string functions used in PHP 10
- b) Write a PHP script to compute the sum & average of N numbers 5
7. a) Explain array_keys & array_values function 5
- b) Create a form containing information sl.no, title of the book, publishers, quantity, price, read the data from the form & write onto a file using PHP script 10

Section – IV

8. a) Explain the three-tier architecture of web site supported by a data base 8
- b) Define metadata 2
- c) Explain the two ways of using JDBC 5
9. a) Write a PHP script to create a new database table with 4 fields of your choice perform the following database operations 10
- i) insert a record
- ii) update a record
- iii) delete a record
- b) Write a note on DBI module 5

10. a) Explain how multiple selection constructs are implemented in Ruby 8

b) Write a ruby program that inputs a list of numbers from the keyboard and finds the second smallest number in the list, along with its position in the list 7