

**COURSE INFORMATION SHEET**

<b>Course: Web Technology Lab with mini project</b>	<b>Semester: 7</b>
<b>Course Code: 17CSL77</b>	<b>Course Type: Regular</b>
<b>Lecture Hours / Week: 01I + 02P Hours/Week</b>	<b>Scheme: 2017</b>
<b>Exam Hours / Exam Marks: 3 Hrs / 60 Marks</b>	<b>Credits: 2</b>
<b>Corresponding Lab Course Code: ---NA---</b>	<b>Lab Course Name: ---NA---</b>

**SYLLABUS:**

<b>Program No.</b>	<b>Details</b>	<b>Hours</b>
	<b>PART -A</b>	
1	Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.	3
2	Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.	3
3	Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays "TEXT-SHRINKING" in BLUE color. Then the font size decreases to 5pt.	3
4	Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems: a. Parameter: A string b. Output: The position in the string of the left-most vowel c. Parameter: A number d. Output: The number with its digits in the reverse order	3
5	Design an XML document to store information about a student in an engineering college affiliated to VTU. The information must include USN, Name, and Name of the College, Branch, Year of Joining, and email id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document	3
6	Write a PHP program to keep track of the number of visitors visiting the web page and to display this count of visitors, with proper headings.	3
7	Write a PHP program to display a digital clock which displays the current time of the server.	1

8	Write the PHP programs to do the following: a. Implement simple calculator operations. b. Find the transpose of a matrix. c. Multiplication of two matrices. d. Addition of two matrices.	3
9	Write a PHP program named states.py that declares a variable states with value "Mississippi Alabama Texas Massachusetts Kansas". write a PHP program that does the following: a. Search for a word in variable states that ends in xas. Store this word in element 0 of a list named statesList b. Search for a word in states that begins with k and ends in s. Perform a caseinsensitive comparison. [Note: Passing re.Ias a second parameter to method compile performs a case-insensitive comparison.] Store this word in element1 of statesList. c. Search for a word in states that begins with M and ends in s. Store this word in element 2 of the list. d. Search for a word in states that ends in a. Store this word in element 3 of the list.	2
10	Write a PHP program to sort the student records which are stored in the database using selection sort.	1
11	<b>MINI-PROJECT:</b> Student should develop Develop a web application project using the languages and concepts learnt in the theory and exercises listed in part A with a good look and feel effects. Student can use any web technologies and frameworks and databases. <b>(Note:</b> <b>1. In the examination each student picks one question from part A.</b> <b>2. A team of two or three students must develop the mini project.</b> <b>However during the examination, each student must demonstrate the project individually.</b> <b>3. The team must submit a brief project report (15-20 pages) that must include the following a. Introduction b. Requirement Analysis c. Software Requirement Specification d. Analysis and Design e. Implementation f. Testing )</b>	15
<b>TOTAL HOURS</b>		<b>40</b>

**TEXT BOOKS / REFERENCE BOOKS:**

<b>Text / Reference</b>	<b>Book Title / Author / Publication / Edition</b>
Text book	1. Randy Connolly, Ricardo Hoar, "Fundamentals of Web Development", 1st Edition, Pearson Education India. (ISBN:978-9332575271)

Ref 1	Robin Nixon, "Learning PHP, MySQL & JavaScript with jQuery, CSS and HTML5", 4 th Edition, O'Reilly Publications, 2015. (ISBN:978-9352130153)
Ref 2	Luke Welling, Laura Thomson, "PHP and MySQL Web Development", 5 th Edition, Pearson Education, 2016. (ISBN:978-9332582736)
Ref 3	Nicholas C Zakas, "Professional JavaScript for Web Developers", 3 rd Edition, Wrox/Wiley India, 2012. (ISBN:978-8126535088)
Ref 4	David Sawyer Mcfarland, "JavaScript & jQuery: The Missing Manual", 1 st Edition, O'Reilly/Shroff Publishers & Distributors Pvt Ltd, 2014 (ISBN:978- 9351108078)
Ref 5	Zak Ruvalcaba Anne Boehm, "Murach's HTML5 and CSS3", 3rd Edition, Murachs/Shroff Publishers & Distributors Pvt Ltd, 2016. (ISBN:978-9352133246)

### **COURSE PRE-REQUISITES**

Course Code	Course Name	Description	Sem
17CS53	DATABASE MANAGEMENT SYSTEM	Structured Query Language (SQL) for database manipulation, Design code for some application to interact with databases.	5

### **COURSE OBJECTIVES**

SL No	Course Objectives
1	Design and develop static and dynamic web pages.
2	Familiarize with Client-Side Programming, Server-Side Programming, Active server Pages.
3	Learn Database Connectivity to web applications.

### **COURSE OUTCOMES**

CO No.	On completion of this course, students will be able to:	RBT Level / Cognitive Level
17CSL77.1	Understand the concepts of HTML5, CSS, JavaScript, XML, PHP and develop Javascript programs.	L3 APPLY
17CSL77.2	Develop XML program to display student information using CSS.	L3 APPLY

17CSL77.3	Develop PHP program to keep track of the number of visitors visiting the web page, Digital Clock, simple calculator, matrix addition, multiplication, transpose	L3 APPLY
17CSL77.4	Develop the PHP programs to sort the student records stored in database using selection sort, string manipulations	L3 APPLY

### **CO-PO-PSO MAPPING**

CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
17CSL77.1	1	-	2	-	1	-	-	-	-	-	-	2	2	-	-
17CSL77.2	1	-	2	-	1	-	-	-	-	-	-	2	2	-	-
17CSL77.3	1	-	2	-	1	-	-	-	-	-	-	2	2	-	-
17CSL77.4	1	-	2	-	2	-	-	-	-	-	-	2	2	-	-
<b>17CSL77</b>	<b>1.0</b>	<b>-</b>	<b>2.0</b>	<b>-</b>	<b>1.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>2.0</b>	<b>-</b>	<b>-</b>

### **CO-PO-PSO JUSTIFICATION**

CO No.	PO/PSO	CL	Justification
17CSL77.1	PO1	1	Slightly mapped as students Understand and apply the concepts of HTML5, CSS, JavaScript, XML, PHP.
	PO3	2	Moderately mapped as students explore and analyse the javascript programs for safety risks and cultural and societal issues
	PO5	1	Slightly mapped as students identify and use the tools such as notepad, sublime, brackets, kate editors and web browser to design and execute the programs respectively.
	PO12	2	Moderately mapped as students describe rationale for requirement for continuing professional development.
	PSO1	2	Moderately mapped as students analyze, design, implement and test web applications.
17CSL77.2	PO1	1	Moderately mapped as students understand the concepts of CSS, , XML, and develop programs and apply the same to write the javascript programs.
	PO3	2	Moderately mapped as students demonstrate the CSS,XML.
	PO5	1	Slightly mapped as students identify and use the tools such as notepad, sublime, brackets, kate editors and web browser

	PO12	2	Moderately mapped as students mapped as students analyze, design, implement and test web applications.
	PSO1	2	Moderately mapped as students understand as students analyze, design, implement and test web applications.
17CSL77.3	PO1	1	Moderately mapped as students understand and apply the concepts of HTML5, PHP to develop the programs.
	PO3	2	Moderately mapped as students demonstrate the HTML5 and PHP server side programming
	PO5	1	Slightly mapped as students use notepad, sublime, brackets, kate editors web browsers, Apache web server for to design and execute the server side PHP scripts.
	PO12	2	Moderately mapped as students describe rationale for requirement for continuing professional development.
	PSO1	2	Moderately mapped as students moderately mapped as students understand as students analyze, design, implement and test web applications.
17CSL77.4	PO1	2	Moderately mapped as students understand and apply the concepts of HTML5, PHP, Mysql to develop the programs
	PO3	1	Slightly mapped as students Slightly mapped as students demonstrate the HTML5 and PHP server side Programs using Mysql database.
	PO5	2	Moderately mapped as students use notepad, sublime, brackets, kate editors web browsers, Apache web server, XAMP, Mysql for to design and execute the server side PHP scripts in teracting with database.
	PO12	2	Moderately mapped as students describe rationale for requirement for continuing professional development
	PSO1	2	Moderately mapped as students understand, analyze, design, implement and test web applications.
	PO1	2	Moderately mapped as students understand and apply the concepts of HTML5, PHP, Mysql to develop the programs

**GAPS IN THE SYLLABUS TO MEET INDUSTRY/PROFESSIONAL REQUIREMENTS:**

SL No.	Description	Proposed Action
1	-	-

**TOPICS BEYOND SYLLABUS / ADVANCED TOPICS / DESIGN:**

SL No.	Description
1	Practical Exposure to HTML,CSS,JAVASCRIPT,PHP,XML AND MYSQL concepts using XAMPP for client side and server side programming.
2	Developing an applications using HTML5,Javascript,PHP.

**WEB SOURCE REFERENCES:**

SL No.	Web References
1	www.w3school.com

**DELIVERY / INSTRUCTIONAL METHODOLOGIES:**

SL No.	Delivery Methodology	Tick Appropriate
1	Chalk and Talk	
2	Student Assignment	<input type="checkbox"/>
3	Student Seminar	
4	LCD Projectors / Smart Boards	<input type="checkbox"/>
5	Student Project / Lab Sessions	<input type="checkbox"/>
6	Additional Courses	-

**ASSESSMENT METHODOLOGIES: DIRECT**

SL No.	Assessment Methodology	Tick Appropriate
1	Assignment	<input type="checkbox"/>
2	Internal Assessment / Model Exams	<input type="checkbox"/>
3	Student Seminar	<input type="checkbox"/>
4	University Exams	<input type="checkbox"/>
5	Student Lab Practices	<input type="checkbox"/>
6	Student Mini / Major Projects	<input type="checkbox"/>
7	Certification Courses / Online Test / Quiz (MOOC /NPTEL/ Others)	-
8	Add-on Courses	-
9	Others (If any)	-

**ASSESSMENT METHODOLOGIES: INDIRECT**

<b>SL No.</b>	<b>Assessment Methodology</b>	<b>Tick Appropriate</b>
1	Assessment of Course Outcomes (Course Feedback)	<input type="checkbox"/>
2	Student Feedback on Faculty (Twice)	<input type="checkbox"/>
3	Assessment of Student Mini / Major Project by Experts	<input type="checkbox"/>
4	Others	-

**Prepared by:**

**Approved by:**

**(Jagadamba A & S Suma )**

**(H.o.D)**