Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
CEL45	Web Technology Lab	-	--	2	-	-	2	1
		Examination Scheme						
		ISE		ESE				Total
				Practical		Oral		
		40		-		20		60

Pre-requisite Course Codes	ES4 (Programming Methodology and Data Structures)

	At end of successful completion of this course, student will be able to	
Course Outcomes	CO1	Design static web pages using HTML5 and CSS3
	CO2	Apply client side scripting to static web pages
	CO3	Build dynamic web pages using server side scripting
	CO4	Develop a web application using web development frameworks

Exp. No.	Experiment Details	Ref.	Marks
1	**Static Web Page Design: HTML5** Basic structure of an HTML5 document, Creating an HTML5 document, Mark up Tags, Heading-Paragraphs, line Breaks HTML5 Tags - Introduction to elements of HTML, Working with Text, Lists, Tables and Frames, Hyperlinks, Images and Multimedia, Forms and other HTML5 controls. *(Programming assignments based on the above topics)*	1,2	**5**
2	**Static Web Page Design: CSS3** Concept of CSS, Creating Style Sheet, CSS Properties, CSS Styling(Background, Text Format, Controlling Fonts), Working with block elements and objects, Lists and Tables, CSS Id and Class, Box Model(Introduction, Border properties, Padding Properties, Margin properties), CSS Advanced(Grouping, Dimension, Display,Positioning, Floating, Align,Pseudo class, Navigation Bar, Image Sprites, Attribute sector), Creating page Layout and Site Designs *(Programming assignments based on the above topics)*	1,2	**5**
3	**Client side scripting – Javascript** Introduction to JavaScript, Lexical Structure, Types, Values, and Variables , Expressions and Operators, Statements, Objects, Arrays, Functions, Pattern matching with regular expressions, Javascript in Web Browsers, The Window object, Scripting Documents, Scripting CSS, Handling Events *(Programming assignments based on the above topics)*	2	**5**
4	**Client side scripting – JQuery** jQuery Basics, jQuery Getters and Setters, Altering Document Structure, Handling events with jQuery, Animated Effects, Utility functions, jQuery Selectors and Selection Methods, Extending	3	**5**

	jQuery with Plug-ins, The jQuery UI Library *(Programming assignments based on the above topics)*		
5	**Bootstrap** Introduction to Bootstrap, downloading and installing Bootstrap, The Grid System: Introducing the Grid, Offsetting and Nesting, Responsive Features, Utility Classes, and Supported Devices, CSS Foundations: Typography in Bootstrap, Styling Tables, Styling Forms, Styling Buttons, Images, icons, and Thumbnails, Navigation Systems: Tabs, Pills, and Lists, Breadcrumbs and Pagination, Navigation Bar, Making the Navigation Bar Responsive, Javascript Effects: Drop-downs, Modal Windows, Tooltips and Popovers, Navigation Aids: Tabs, Collapse, Affix, Carousel, Bootstrap Customization: Combining Elements in Bootstrap, Customizing by Components, Plugins, and Variables *(Programming assignments based on the above topics)*	4	5
6	**Server side-scripting – PHP** Introduction to PHP, PHP Tags, Adding Dynamic content, Accessing form variables, Identifiers, user-declared variables, Data types, Constants, Operators, Control structures, Conditionals, Iteration constructs, Using arrays, string manipulation and regular expressions, reusing code and writing functions *(Programming assignments based on the above topics)*	5	5
7	**Server side-scripting – PHP** Designing and creating your web database, Accessing MySQL database from the Web with PHP, Session Control in PHP *(Programming assignments based on the above topics)*	5	5
8	**Server side-scripting – Laravel Framework** Managing Your Project Controllers, Layout, Views, and Other Assets, Talking to the Database, Model Relations, Scopes, and Other Advanced Features, Integrating Web Forms, Authenticating and Managing Your Users, Deploying, Optimizing and Maintaining Your Application *(Programming assignments based on the above topics)*	6	5
	Total Marks		**40**

References:

[1] J. Millman and A. Grabel, "*Head First HTML and CSS*", 2nd edition, O' Reilly..

[2] Ben Frain, *"Responsive Web design with HTML5 and CSS3",* PACKT Publishing Ltd.

[3] David Flanagan, *"Javascript: The Definitive Guide"*, 6th edition, O' Reilly.

[4] Jennifer Kyrnin, *"SAMS Teach Yourself Bootstrap in 24 hours"*, 1st edition, Pearson Education.

[5] L. Welling and L. Thomson, "*PHP and MySQL Web Development*", 4th edition, Adison Wesley Professional.

[6] Martin Bean, *"Laravel 5 Essentials",* PACKT Publishing Ltd