Course Code	Course Name	Teaching Scheme (Hrs/ week)			Credits Assigned			
		L	T	P	L	T	P	Total
MCA L16	Web Technology Lab	--	--	4	--	--	2	2
		Examination Scheme						
		Term work		Practical		Oral		Total
		40		10		10		60

Pre-requisite Course Codes		Basic understanding of programming fundamentals
Course Outcomes	CO1	Develop static web sites using HTML5,CSS3 and Client side scripting.
	CO2	Develop responsive, mobile-first web sites using Bootstrap.
	CO3	Build dynamic web sites using open source technology.
	CO4	Apply PHP framework to build dynamic website.

Exp. No.	Experiment Details	Ref.	Marks
1.	**Introduction to web technologies, HTML & HTML5:** Concept of www, protocols: HTTP, SHTTP, web browser and web server. Basics of HTML, HTML and HTML5 elements, form designing, HTML Graphics, HTML Media. (Programming assignments based on above topics)	1,2	5
2.	**Cascading Style Sheets3:** Introduction to CSS, types of CSS, syntax and structure. Introduction to CSS3, CSS3 modules: Selectors, Box model, backgrounds and borders, Image values and replaced content, text effects, 2D/ 3D transformations, animations, multiple column content, user interface (Programming assignments based on above topics)	1,2,8	5
3.	**Java script and JQuery:** Introduction to Java script, variable, number and array, functions, pop up boxes, event handling, form validation, Introduction to DOM. JQuery basics, jQuery Effects, jQuery HTML (Programming assignments based on above topics)	3,4,8	5
4.	**AJAX** : Making a server request, loading HTML scriptlets from server, AJAX events, AJAX style file upload. (Programming assignments based on above topics)	5,9	5
5.	**Bootstrap**: Bootstrap: Introduction to Bootstrap, Bootstrap Grid System, Bootstrap	6	5

	Grid System, Container Layouts. Bootstrap CSS: Typography, code, tables, forms, buttons, images, icons. Bootstrap Layout components. Bootstrap JavaScript plugins.		
6.	**PHP and MySQL**: Configuration and installation of PHP, basic syntax of PHP, expressions, statements, arrays, strings, functions, regular expression, form validation. File handling: File operations - create, write, read, copy, move, delete, update and upload file. Database: SQL Query, DDL and DML queries. PHP connection to database server. Database operations – create, select, insert, update, delete, & join operation. Session management – using cookies & sessions. AJAX with PHP and My SQL. (Programming assignments based on above topics)	7,8,9	5
7.	**PHP Framework:** Laravel: Introduction, Setting up a development environment, First application, Eloquent ORM, Testing.	10	5
8.	**Mini Project**: Maximum two students in a group.	All	5
		TOTAL	**40**

References:

[1] DT Editorial Services, "HTML 5, Black Book", dreamtech Press, 2nd Edition.
[2] Ben Frain, "Responsive web design with HTML5 and CSS3", Packt, 2nd Edition.
[3] Michael Morrison, "Head First JavaScript", O'Reilly publication, 2007.
[4] Jonathan Chaffer, Karl Swedberg, "Learning jQuery", Packt, Shroff Publication,4th Edition.
[5] Bayross, Ivan, Shah, "AJAX for Beginners", Shroff Publication, 1st Edition.
[6] Jake Spurlock, "Bootstrap", O"Reilly publication, 2013.
[7] Jesus Caspagnetto, Etal, "Professional PHP Programming", Wrox Publication.
[8] Nixon, Robin, "Learning PHP, MySQL, & JavaScript: with jQuery, CSS & HTML5", Shroff Publication, 4th Edition.
[9] Harwani, "Developing Web Applications in PHP and AJAX", McGrawHill, 2010.
[10] Martin Bean, "Laravel 5 Essentials", Packt publication, 2015.