



C. U. Shah University, Wadhwan City

Faculty of Computer Science

Name of Program: Bachelor of Science (Information Technology)
(B.Sc IT.)

Semester : VI

W.e.f. June 2017

Teaching & Evaluation Scheme

Sr. No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							
			Th	Tu	Pr	Total		Theory				Practical			Total Marks
								Sessional Exam		University Exam		Internal		Uni.	
								Marks	Hrs	Marks	Hrs	Pr	TW	Pr	
1	4CS06IWF1	WEBSITE FRAMEWORK	4	-	-	4	4	30	1.5	70	3	-	-	-	100

Objectives:

Students will leave the course understanding the website framework architecture, MVC and data models, how to work with Joomla (CMS) and CodeIgniter (MVC)

Pre-requisites: Students must be familiar with developing in a WAMP environment. Familiarity with MVC structure.

Course Outline:

Ch. No.	Chapter Name	Topics	Lect. (Hours)
1	CodeIgniter framework (MVC)	1.1 Introduction to CodeIgniter framework(MVC) 1.2 CodeIgniter at a Glance 1.3 Supported Features of CodeIgniter framework 1.4 Application Flow Chart of CodeIgniter framework 1.5 Model-View-Controller of CodeIgniter framework 1.6 Architectural Goals	6
2	First CodeIgniter Application	2.1 Loader Class, 2.2 Libraries, 2.3 Creating Static Pages, 2.4 Creating Controller file, Model file & View file	6
3	Form and Session Handling	3.1 Input Class, 3.2 Form Validation Class, 3.3 File Uploading Class, 3.4 Page Redirection, 3.5 Session Class	5
4	Helper Functions	4.1 Cookie Helper, 4.2 Date Helper, 4.3 Download Helper, 4.4 File Helper, 4.5 URL Helper	5
5	Database Class	5.1 Database Configuration, 5.2 Connecting to a Database, 5.3 Running Queries,	5

		5.4 Generating Query Results	
6	Active Record Class	6.1 Selecting Data, 6.2 Inserting Data, 6.3 Updating Data 6.4 Deleting Data	5
7	Introduction to Joomla framework(CMS)	7.1 Introducing the Joomla 7.2 Content Management System, 7.3 Features of Joomla framework, 7.4 Advantages and disadvantages of Joomla, 7.5 Installation of Joomla framework	6
8	Joomla Front – end and Back - end	8.1 Introducing the Front End (The Public Interface) Understanding content organizational structure Understanding menu structure Modules and module positions 8.2 Introducing the Back End (The Admin Interface) Exploring the admin interfaces The Site menu The Menus menu The Content menu The Components menu The Extensions menu The Tools menu The Help menu	6
9	Joomla - Managing Content and Articles	9.1 Understanding the Joomla Content Hierarchy 9.2 Creating Content Hierarchies Working with sections and categories 9.3 Working with Articles Using the Article Manager Creating articles 9.4 Managing Articles Publishing and unpublishing articles Modifying articles Copying articles Moving articles Deleting articles Archiving articles	6
10	Joomla - Menu and User manager	10.1 Introducing the Menu Manager Creating and Managing Menus Relationship between menus and modules Creating a new menu Copying a menu Editing and deleting menus 10.2 Introducing the User Manager The Joomla User Hierarchy 10.3 Public front-end users and back-end users 10.4 Adding Users to the System Creating a new user Working with the New User dialogue 10.5 Managing Users	5
		TOTAL	55

Teaching Methodology:

Revision, Paper Solving, Seminar, Expert Talk, MCQ Quiz, Viva Test, Programming Test

Learning Outcomes:

- Log in to Joomla administration section of a website
- Understand how the Joomla backend functions
- Add sections, categories, and pages
- Add users and permissions
- Confidentially Develop CodeIgniter based website with less use of code
- Create fully functional and rich-feature web applications using CI.

Text Books Recommended:

(1) Programming with CodeIgniter MVC, Author: Eli Orr Yehuda Zadik, Published by Packt Publishing Ltd., ISBN 978-1-84969-470-4,

(2) Joomla!® Bible, Author: Ric Shreves, Published by Wiley Publishing, Inc, ISBN: 978-0-470-50957-9

Reference Books:

(1) CodeIgniter for Rapid PHP Application Development, Author: David Upton, Published by Packt Publishing Ltd., ISBN 978-1-847191-74-8

(2) Codeigniter 2 Cookbook, Author: Rob Foster, Published by Packt Publishing Ltd., ISBN 978-1782162308

(3) Joomla: 24-Hour Trainer, Author: Jen Kramer, Publisher: Wiley India Private Limited, ISBN-13: 978-8126531424

(4) Joomla! 3 Beginner's Guide, Author: Eric Tiggeler, Published by Packt Publishing Ltd., ISBN 139781782164340

Web Resources:

(1) CodeIgniter Web Framework : <https://www.codeigniter.com/>

(2) CodeIgniter User Guide: <https://www.codeigniter.com/userguide2/>

(3) <https://www.joomla.org/>

(4) <https://docs.joomla.org/Tutorials:Beginners>

Practical List:

(A) CodeIgniter Framework (MVC):

Practical 1 – Calling the controller index method

Practical 2 – Calling the controller and calc method without arguments

Practical 3 – Calling the controller and calc method with arguments

Practical 4 – The default homepage controller (controller file, view file, configuration file)

Practical 5 – Sending e-mails with attachments

Practical 6 – Admin and regular user log in

Practical 7 - A CRUD Practical (controller file, model file, view file)

Practical 8 - Retrieving data from Facebook (controller file, model file, view file)

Practical 9 – Write a php script for creating student profile form using form helper and apply form validation using form validation class.

Practical 10 - Write a php script to display message with controller in codeigniter.

Practical – 11 Write a php script to display message with controller and view.

Practical – 12 Write a php to display message as according to enter url values.

Practical – 13 Write a php script to print message using constructor function.

Practical – 14 Write a php script to print message using default constructor function.

Practical – 15 Write a php script for generates output using controller, model and view.

Practical – 16 Write a php script to create a form and insert those values into database.

Practical – 17 Write a php script for file upload from client to server.

Practical – 18 Write a php script for input any two values to form and find out answer using arithmetic operation.

Practical – 19 Write a php script for form validation as per defined interfaces.

Practical – 20 Write a php script for login page using session, if username and password is validated with database then display homepage with logout option.

(B) Joomla Framework (CMS)

(1) GETTING TO KNOW JOOMLA

Introducing frontend and backend – the Joomla interface

Exploring the frontend – the website as the user sees it – tour the example site

Taking control – administering your site in the backend – logging in to the backend

Getting your feet wet – start administering your site

1 – publishing your first article

2 – adding a module to the site

3 – setting Joomla preferences

(2) WEB BUILDING BASICS: CREATING A SITE

Building your new site in three steps

Step 1: Customizing the layout

- creating a copy of the current template
- preparing a new logo image
- tweaking the design details

Step 2: Adding content

- creating a News category
- creating an article
- adding a menu link
- adding uncategorized articles
- assigning articles to the home page

Step 3: adding extras through extensions

- creating a contact
- creating a Contact Form menu link
- creating a message block

Wrapping up: Changing site settings

- changing the site configuration

(3) CREATING CONTENT: ADDING AND EDITING ARTICLES

Articles and content pages

Creating and editing articles: beyond the basics

Making your words look good: formatting article text

- add styling to article text

Adding images to articles

- uploading images
- inserting and aligning images

Changing the way the article displays

- creating an intro text
- using page breaks to split up an article

Displaying images and links with articles

- adding images and links to an article

Tweaking the details: changing article settings

Archiving articles – creating a news archive