

**BHARATHIAR UNIVERSITY: COIMBATORE-641046**  
**CENTRE FOR COLLABORATION OF INDUSTRY AND INSTITUTION (CCII)**  
**DIPLOMA IN MOBILE AND WEB 2.0 APPLICATION DEVELOPMENT**  
(For the CCII students admitted from the academic year 2015-16 onwards)

**SCHEME OF EXAMINATION**

**SEMESTER-1**

<b>Paper</b>	<b>Course Title</b>	<b>Marks</b>
Theory 1	Web UI Development	100
Theory 2	Business Communication	100
Practical 1	Web Designing	100
Practical 2	Client Side Programming	100

**SEMESTER-2**

Theory 3	Cloud Computing	100
Practical 3	<b>Elective 1:</b> Android Mobile Apps Development <b>Elective 2:</b> IOS Mobile Apps Development	100
Practical 4	<b>Elective 1:</b> Web Application Development using .NET & MSSQL <b>Elective 2:</b> Web Application Development using PHP & MYSQL	100
	<b>Total</b>	700

<b>Course</b>	<b>Diploma In Mobile And Web 2.0 Application Development</b>
<b>Effective from</b>	<b>2015-2016 and Onwards</b>
<b>Semester</b>	<b>I</b>
<b>Subject</b>	<b>Theory 1 : Web UI Development</b>

**Overall Objective:** At the end of the program the student will be able to understand the basics of web-based user interface. The student will also learn newer implementation utilizing xHTML, CSS, JavaScript, JQuery and AJAX.

### UNIT 1

**Introduction:** Introduction to web UI development - Introduction to xHTML, CSS, JavaScript - Basics of jQuery - Basics of AJAX - **XHTML** : The differences between XHTML and HTML - Basic XHTML – **HTML** – Lists – Images – Linking – Tables – Div – Frames - Other frontend objects–Forms- The DIV and SPAN Elements

### UNIT 2

**CSS:** Introduction to Cascading Style Sheets (CSS) - Designing with Style Sheets - Style Sheet Syntax - Class Selectors - Linked (External) Style Sheets - Cascading Order - Text and Font Properties - Applying Colors - Background Techniques - Formatting with the Box Model – Borders - Floating Elements- Styling Lists- Positioning Elements Absolutely and Relatively- Layering Elements with the Z-Index Property- Applying CSS Wisely- Dynamically Linked Style Sheets- Contextual Selectors- Validating CSS- The Future of CSS

### UNIT 3

**JavaScript:**JavaScript as a Web programming language- Creating variables in JavaScript- Using alert and confirm boxes- Strings and numbers in JavaScript- Converting strings to numbers - Using conditional statement - Understanding switch- loops- functions- objects- Using the Array object- Math object- Using random numbers- Date object- Manipulating string data- Basic events and event handlers- Event capturing and event bubbling- Understanding the Browser Object Model (BOM)- Browser object detection techniques- Simple and complex rollovers- Understanding the Document Object Model (DOM)- HTML documents as family trees- HTML documents as node trees- Basic DOM objects, methods, and properties- JavaScript best practices

### UNIT 4

**JQuery:** Introducing jQuery - jQuery Basics- DOM Manipulations with jQuery- Ajax Requests with jQuery- The jQuery User Interface (UI) Library – **AJAX**- What Is AJAX?- Basic AJAX Techniques- Using AJAX Effectively- Specific - And Reusable - Building A Multi-User AJAX Application- Production Ready AJAX- Overview of Frameworks Supporting Ajax

### UNIT 5

**Dreamweaver:** Exploring Dreamweaver Interface - Planning & Setting Web Site Structure Working with panels-Understanding and switching views-Using property inspector

Formatting text-Creating Web pages-Hyperlinking pages-External Linking-Anchor & EmailLink-Inserting Tables-Merging cells -Setting table properties-Working with images Understanding jpg and GIF file format-Image Linking-Creating rollover images-Inserting flash swf file in web pages-Working with forms-Validating forms-Creating and working with Templates-Using Behaviours-Creating interactive website-Creating Tableless website using CSS

### Reference Books

HTML5 Black Book: Covers CSS3, Javascript, XML, XHTML, Ajax, PHP and JQuery by Kogent Learning Solutions Inc. Paperback

Subject	<b>Theory 2: BUSINESS COMMUNICATION</b>
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**Overall Objective:** This Program designed to give students a comprehensive view of communication, its scope and importance in business specific to IT Industry, and the role of communication in establishing a favorable outside the firm environment, as well as an effective internal communications program. The various types of business communication media are covered. This course also develops an awareness of the importance of succinct written expression to modern business communication.

### UNIT 1

**Introduction to Business Communication** - Basic Skills - Persuasion - Style, and tone - Principles of Correspondence

### UNIT 2

**Letter-Writing Strategies** - Inquiry/Request Letters - Response Letters - Business Email Etiquettes

### UNIT 3

**Customer Relations and Sales Letters** - Customer Relations Letters - Sales Letters

### UNIT 4

**Résumés and Covering Letters:** Layout and Design - Résumés - Covering Letters

### UNIT 5

**Reports and Proposals:** Reports - Proposals - Preparing for your Assignment

Subject	<b>Practical 1: Web Designing</b>
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1. Develop a HTML document which displays you name as **<h1>**heading and displays any four of your friends. Each of your friend's names must appear as hot text. When you click your friend's name, it must open another HTML document, which tells about your friend.
2. Write names of several countries in a paragraph and store it as an HTML document, *world.html*. Each country name must be a hot text. When you click India (for example), it must open *india.html* and it should provide a brief introduction about India.
3. Design a HTML document describing you. Assign a suitable background design and background color and a text color.
4. Create order and un order lists.
5. Write a HTML document to print your class Time Table.
6. Develop a Complete Web Page using Frames and Framesets which gives the Information about a Hospital using HTML.
7. Develop complete set of web pages to describe you skills in various areas using HTML.
8. Develop a web site to publish your family and the details of each member using HTML.
9. Develop a HTML document to display a Registration Form for an inter-collegiate event.
10. Develop a HTML document to design Alumni Registration form of your college.

Subject	<b>Practical 2: Client Side Programming</b>
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1. Create a web page that presents information to the user in the form of a heading and 2 separate unordered lists. Make the heading and one of the lists a part of the page as html. Output the other list using internal JavaScript commands. The subject matter of the lists is your choice. Apply a Cascading Style Sheet to the page changing the color of some text as well as the font style.
2. Create a copy of the page and link with external javascript library file.
3. Use the window.prompt approach to gather information from a user to calculate the square feet and square yards needed to carpet a room. Request the length and width of the room (separately) in feet only (no inches) using appropriate prompts. Calculate total feet = length \* width then calculate the square feet. Now calculate the square yards. Display the information you calculated to the user clearly. Do not round your results.
4. Using the carpet calculator you just created as a model, design a web form to capture user input for a calculation on the square feet of carpet that will be needed for a room. This time ask the user for the input values using a web form. Calculate as you did above. Display the information you calculated clearly for the user.
5. Create a web page and incorporate JavaScript to calculate the average grade for 3 tests. Program in the following values: Student 1 = 85, 93, 68 Student 2 = 85, 95, 75 Student 3 = 79, 80, 82 Student 4 = 79, 80, 83 and display I rank holder.
6. Create a random number (0-9) generation program using JS.
7. Create vote eligibility calculator.
8. Create a ball pitching animation using jquery.
9. Create a Slider web site using jquery.
10. Create a form validation using jquery and javascript.

Semester	<b>II</b>
Subject	<b>Theory 3: Cloud Computing</b>

**Overall Objective:** At the end of the program the students will learn about the concepts on Cloud Computing. They will become familiar with Application Deployment on Cloud, and using Amazon Web Services for Storage and Application Deployment.

**Specific Objective:** Students will have an excellent understanding about cloud computing concepts and deployment of applications on cloud with knowledge on Amazon Web Services.

#### **UNIT 1**

**Introductions to Cloud Computing** -Cloud Computing: An Introduction - Key Concepts - Benefits of Cloud Computing -Leading Cloud Computing Providers: Offerings and Architectures -When Cloud Computing Isn't a Good Fit

#### **UNIT 2**

**Cloud Computing Requirements and Challenges** -Application Design -System Management - Storage -Security -Maintaining IT Control

#### **UNIT 3**

**Moving to Cloud Computing** -Integrating Cloud Principles into System Architecture, Design and Implementation -Migrating Existing Applications -Deployment on Cloud

#### **UNIT 4**

**Using Amazon Web Services (AWS)** -AWS Overview -Billing & Credential Management - Identity Management -Monitoring & Reporting

#### **UNIT 5**

**Using Amazon Web Services (S3)** -S3 Overview -EC2 Overview -• Priority Queues with Amazon SQS - REST with Amazon S3

Semester	<b>II</b>
Subject	<b>Practical 3: Elective 1: Android Mobile Apps Development</b>

**Exercise 1** - Developing Simple Applications for Android

**Exercise 2** - Creating Applications with Multiple Activities and a Simple Menu using ListView

**Exercise 3** - Creating Activities For Menu Items and Parsing XML Files

**Exercise 4** - Writing Multi-Threaded Applications

**Exercise 5** - Using WebView and Using the Network

**Exercise 6** - Using Audio Functions in Android

**Exercise 7** - Graphics Support in Android

**Exercise 8** - Preferences and Content Providers

**Exercise 9** - Location Services and Google Maps in Android

**Exercise 10**- creating game using Simulating Sensors

Subject	<b>Practical 3: Elective 2: IOS Mobile Apps Development</b>
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**Exercise 1** - App displaying timetable for Olympic events

**Exercise 2** - Allows you to transfer stuff from one iPhone to another by “flicking” it to the other device.

**Exercise 3** - Simple Open Source Notepad.

**Exercise 4** - Calculator app based on classic scientific HP-Calculator

**Exercise 5** - A reader app for the popular how to wiki site.

**Exercise 6** - Pocket database containing a summary of daily accounts.

**Exercise 7** - Calendar app for the conference

**Exercise 8** - Hospital finder using GPRS

**Exercise 9** - 2D Checker Game

**Exercise 10** - Personal to-do list and task manager

Subject	<b>Practical 4: Elective 1: Web Application Development using .NET &amp; MSSQL</b>
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1. Create a simple web site using asp.net
2. Write a program to implement the concept of if-else and while loop.
3. Write a program to show that array is received on server side during multiple options inSELECT.
4. Write a program to show the concept of Session.
5. Write a three-tier architecture.
6. Write a program in for create a word editor and write the data into it.
7. Create a database of an employee in MS Sql.
8. Write a program to connect to the database already created in MSSql.
9. Write a program to read, write, update and delete the database using ASP.NET.
10. Write an application for email registration and login using C#.NET and MSSQL.

Subject	<b>Practical 4: Elective 2: Web Application Development using PHP &amp; MYSQL</b>
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1. Create a web page HTML and execute a PHP file on submission of the HTML form and display the information using PHP.
2. Write a program to implement the concept of if-else and while loop.
3. Write a program to show that array is received on server side during multiple options inSELECT.
4. Write a program to show the concept of cookie.
5. Write a PHP script showing function call.
6. Write a program in PHP to create a file and write the data into it.
7. Create a database of an employee in MySql.
8. Write a program to connect to the database already created in MySql.
9. Write a program to read, write, update and delete the database using PHP.
10. Write an application for email registration and login using PHP and MySQL.