RAYALASEEMA UNIVERSITY, KURNOOL

Common Framework of CBCS for Colleges in Andhra Pradesh w.e.f. 2017-2018
(Revised in April, 2016)

III YEAR VI SEMESTER
Paper-VII : Elective-C

Web Technologies

Course Objective
 To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.
 To provide skills to design interactive and dynamic web sites.

Course Outcome
1. To understand the web architecture and web services.
2. To practice latest web technologies and tools by conducting experiments.
3. To design interactive web pages using HTML and Style sheets.
4. To study the framework and building blocks of .NET Integrated Development Environment.
5. To provide solutions by identifying and formulating IT related problems.

UNIT – I
HTML: Basic HTML, Document body, Text, Hyper links, adding more formatting, Lists, Tables using images. More HTML: Multimedia objects, Frames, Forms towards interactive, HTML document heading.

UNIT – II
Cascading Style Sheets: Introduction, using Styles, simple examples, your own styles, properties and values in styles, style sheet, formatting blocks of information, layers.

UNIT – III
Introduction to JavaScript: What is DHTML, JavaScript, basics, variables, string manipulations, mathematical functions, statements, operators, arrays, functions. Objects in JavaScript: Data and objects in JavaScript, regular expressions, exception handling.

UNIT – IV
DHTML with JavaScript: Data validation, opening a new window, messages and confirmations, the status bar, different frames, rollover buttons, moving images, multiple pages in single download, text only menu system.

UNIT – V
XML: defining data for web applications, basic XML, document type definition, presenting XML, document object model, Web Services.

References:
1. Harvey M. Deitel and Paul J. Deitel, **"Internet & World Wide Web How to Program", 4/e,** Pearson Education.
2. Uttam Kumar Roy, Web Technologies from Oxford University Press
3. Jason Cranford Teague —**Visual Quick Start Guide CSS, DHTML & AJAX", 4e**, —Pearson Education.
4. Tom Nerino Doli smith **"JavaScript & AJAX for the web"** Pearson Education 2007.
5. Joshua Elchorn **"Understanding AJAX"** Prentice Hall 2006.
6. Hal Fulton **"The Ruby Way", 2e,** Pearson Education 2007.
7. David A. Black **"Ruby for rails"** Dreamtech Press 2006.
8. Bill Dudney, Johathan lehr, Bill Willies, Lery Mattingly **"Mastering Java Server Faces"** Wiely India 2006.

Student Activities:
1. Prepare a web site for your college

2. Prepare your personal website

Web Technologies Lab
1. Write a HTML program illustrating text formatting.
2. Prepare a sample code to illustrate links between different sections of the page.
3. Create a simple HTML program to illustrate three types of lists.
4. Create nested table to store your curriculum vitae.
5. Create a help file as follows:
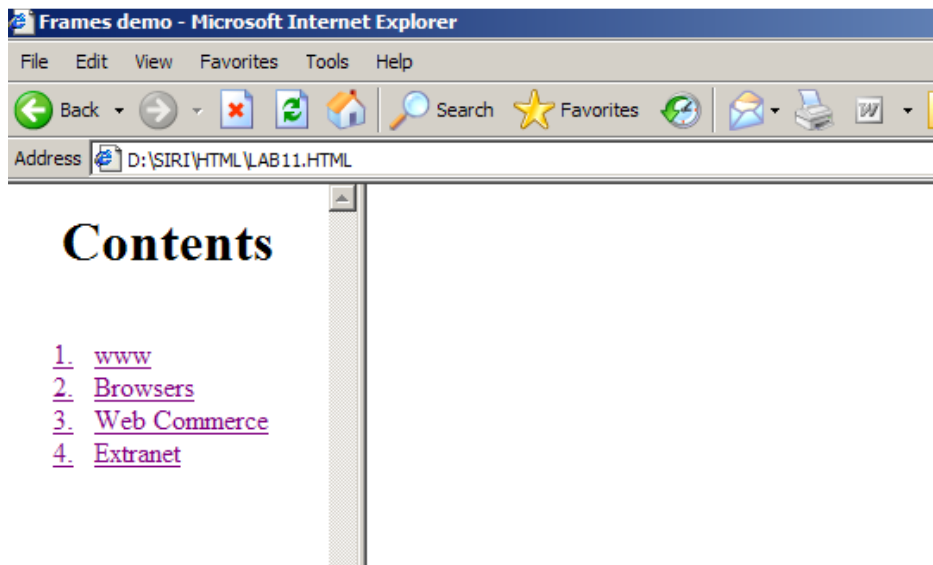
6. Illustrate the procedure of creating different types stylesheets.
7. Write a script to find the factorial of a given number using functions.
8. Write a script to print Fibonacci series using recursive functions.
9. Write a script to wish the user —Good Morning‖ at different hours of the day.

10. Create a web page for a shopping mall that allows the user to tick off his purchases and obtain a bill with the total being simultaneously added up. The web page must follow the specifications as given below:

a. The entire web page must be divided into four portions. The top most portion states the name of the mall, the middle portion of the web page is divided vertically into two, the types of the items available in the mall are displayed on the left side and a detailed description of each item with the prices are available on the right.Finally, the bottom most portion of the web page must display the cash memo with the total along side.

b. Each item in the left hand frame must have a link to the file containing its detailed description, which must be displayed in the right hand frame. Ensure that the user is able to perceive only that portion of the file that is related to the item on which he clicked.Prior to the link being activated, the right hand frame must display a friendly message that gives an idea about its latter contents.

III YEAR VI SEMESTER
PROJECT & VIVA-VOCE

The objective of the project is to motivate them to work in emerging/latest technologies, help the students to develop ability, to apply theoretical and practical tools/techniques to solve real life problems related to industry, academic institutions and research laboratories.

The project is of 2 hours/week for one **(semester VI)** semester duration and a student is expected to do planning, analyzing, designing, coding, and implementing the project. The initiation of project should be with the project proposal. The synopsis approval will be given by the project guides.

The project proposal should include the following:

- Title
- Objectives
- Input and output
- Details of modules and process logic
- Limitations of the project
- Tools/platforms, Languages to be used
- Scope of future application

The Project work should be either an individual one or a group of not more than three members and submit a project report at the end of the semester. The students shall defend their dissertation in front of experts during viva-voce examinations.