IV Semester
Course 3: Web Technologies
Credits -3

I. LEARNING OUTCOMES:

Students after successful completion of the course will be able to

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 Integrated Development Environment.

5. To provide solutions by identifying and formulating IT related problems.

II. SYLLABUS:

UNIT I

Internet Language, Understanding HTML, HTML document structure, Create a Web Page, Publishing HTML Pages, Tags in HTML, title tag, Text Alignment tags, Text Formatting tags, heading tags, horizontal rule tag, paragraph tag, break tag.HTML Lists - Ordered List, Unordered List & Definition List – Using colors – Using Images

UNIT II

Horizontal Rule Tag - HTML Tables – Nested Tables - Hyperlinks: Textual, Graphical Links to sections – Multimedia Objects – Frames – Nested Frames – Forms – Form Controls: textbox, password, checkbox, radio button, select, text area - Processing of forms

UNIT III

JavaScript- Introduction, simple programming, Obtaining User Input with prompt Dialogs, Operators (arithmetic, Decision making, assignment, logical, increment and decrement) Control Structures - if… else selection statement, while, do… while repetitions statement, for statement, switch statement, break and continue statements.

UNIT IV

Functions – program modules in JavaScript, programmer defined functions, function definition, scope rules, global functions, and recursion JavaScript: Arrays, declaring arrays, accessing elements of an array.

UNIT V

Cascading Style Sheets: Introduction – Using Styles: As an attribute, tag & external file –Defining your own styles Properties and values: properties related to Fonts, Backgrounds & colors, text, boxes & borders Formatting blocks of information: Classes - Divisions – Spans - Layers with suitable examples.

III.REFERENCES:

TEXT BOOK:

1. Internet & World Wide Web - H.M.Deitel, P.J.Deitel, A.B.Goldberg-5th Edition

REFERENCE BOOKS

1. Programming Worldwide Web by RW Sebesta (Pearson)

2. An Introduction to Web Design + Programming by Wang & Katia (Pearson)

3. HTML & XML An Introduction NIIT(PHI)

4. HTML for the WWW with XHTML & CSS by Wlizabeth Castro (Pearson)

5. Fundamentals of the Internet and the World Wide Web by Raymond Green Law And Ellen Hepp (TMH)

6. Internet and Web Technologies by RajKamal(TMH)

7. Internet and WebBasics by NedSnell,BobTemple,TMClark(Pearson)

IV. SUGGESTEDCO-CURRICULARACTIVITIES:

1. Buildawebsitewith10pagesforthecasestudyidentified.

2. Training of students by related industrial experts.

3. Assignments

4. Seminars, Group discussions ,Quiz, Debates etc.(on related topics).

5. Presentation by students on best websites

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V.WEB TECHNOLOGIES - PRACTICAL

1. Design web pages for your college containing a description of the courses, departments, faculties, library etc, use href, list tags.

2. Create your class timetable using table tag.

3. Create user Student feedback form (use textbox, text area, checkbox, radio button, select box etc.)

4. Write HTML code to develop a webpage having two frames that divide the webpage into
two equal rows and then divide the row into equal columns fill each frame with a different background color.

5. Create your resume using HTML tags also experiment with colors, text , link ,size and also other tags you studied.

6. Design a web page of your home town with an attractive background color, text color, an Image, font etc. (use internal CSS).

7. Use Inline CSS to format your resume that you created.

8. Use External CSS to format your class timetable as you created.

9. Use External, Internal, and Inline CSS to format college web page that you created.

10. Develop a JavaScript to display today's date.

11. Develop simple calculator for addition, subtraction, and multiplication and division operation using JavaScript

12. Create HTML Page with JavaScript which takes Integer number as input and tells whether the number is ODD or EVEN.

13. Create HTML Page that contains form with fields Name, Email, Mobile No, Gender, Favorite Color and a button now write a JavaScript code to combine and display the information in textbox when the button is clicked

IV Semester
Course 4: Object Oriented Programming through Java
Credits -3

III. LEARNINGOUTCOMES:

Upon successful completion of the course, a student will be able to:

1. Understand the basic concepts of Object-Oriented Programming and Java Program Constructs

2. Implement classes and objects

2. Understand the benefits of code reusability achieved through inheritance

3. Demonstrate various classes in different packages and can design own packages

4. Learn the syntax and mechanisms of exception handling in Java

5. Learn how to create and manage threads and establish connections to database using JDBC.

II.SYLLABUS:

UNITI

Introduction to Java: Features of Java, The Java virtual Machine, Structure of Java ProgramNaming Conventions and Data Types: Naming Conventions in Java, Data Types in Java, Literals Operators in Java: Operators

Control Statements in Java: if... else Statement, do... while Statement, while Loop, for Loop, for each loop, switch Statement , break Statement, continue Statement, return Statement Input and Output: Accepting