MANGALORE UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE
MSc COMPUTER SCIENCE

CSE 465 :WEB TECHNOLOGIES

Hours/Week: 4   **I.A.   Marks: 30**
Credits : 4   **Exam. Marks: 70**

Course Outcomes:

CO1:   Employ fundamental computer theory to basic programming techniques.
CO2:   Use fundamental skills to maintain web server services required to host a website.
CO3:   Select and apply markup languages for processing, identifying, and presenting of information in web pages.
CO4:   Use scripting languages and web services to transfer data and add interactive components to web pages.
CO5:   Create and manipulate web media objects using editing software.
CO6:   Incorporate aesthetics and formal concepts of layout and organization to design websites that effectively communicate using visual elements.

UNIT-I   12 Hrs.

Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols -The World Wide Web-HTTP request message-response message-Web Clients Web Servers-Case Study. Markup Languages: XHTML. An Introduction to HTML History-Versions-Basic XHTML Syntax and Semantics-Some Fundamental HTML Elements-Relative U RLs-Lists-tables-Frames-Forms-XML Creating HTML Documents Case Study. Style Sheets: CSS-Introduction to Cascading Style Sheets-Features-Core Syntax-Style Sheets and HTML Style Rle Cascading and Inheritance-Text Properties-Box Model Normal Flow Box Layout-Beyond the Normal Flow-Other Properties-Case Study. Client- Side Programming: The JavaScript Language-History and Versions Introduction JavaScript in Perspective-Syntax-Variables and Data Types-Statements-Operators-Literals-Functions-Objects-Arrays-Built-in Objects-JavaScript Debuggers.

UNIT-II   12 Hrs.

Host Objects : Browsers and the DOM-Introduction to the Document Object Model DOM History and Levels-Intrinsic Event Handling-Modifying Element Style-The Document Tree-DOM Event Handling-Accommodating Noncompliant Browsers Properties of window-Case Study. Server-Side Programming: Java Servlets- Architecture -Overview-A Servelet-Generating Dynamic Content-Life Cycle-Parameter Data-Sessions-Cookies URL Rewriting-Other Capabilities-Data Storage Servelets and Concurrency-Case Study- Related Technologies.

Representing Web Data: XML-Documents and Vocabularies-Versions and Declaration - Namespaces JavaScript and XML: Ajax-DOM based XML processing Event-oriented Parsing: SAX-Transforming XML Documents-Selecting XML Data :XPATH-Template-based Transformations: XSLT-Displaying XML Documents in Browsers-Case Study- Related Technologies. Separating Programming and Presentation: JSP Technology Introduction-JSP and Servlets-Running JSP Applications Basic JSP-JavaBeans Classes and JSP-Tag Libraries and Files-Support for the Model-View-Controller Paradigm-Case Study-Related Technologies.

Web Services: JAX-RPC-Concepts-Writing a Java Web Service-Writing a Java Web   Service Client-Describing Web Services: WSDL- Representing Data Types: XML Schema-Communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files-Databases and Java Servlets.

REFERENCE BOOKS:
1. Jeffrey C. Jackson, "Web Technologies--A Computer Science Perspective", Pearson Education, 2006.
2. Robert. W. Sebesta, "Programming the World Wide Web", Fourth Edition, Pearson Education, 2007.
3. Deitel, Deitel, Goldberg, "Internet & World Wide Web How To Program", Third Edition, Pearson Education, 2006.
4. Marty Hall and Larry Brown,"Core Web Programming" Second Edition, Volume I and II, Pearson Education, 2001.
5. Bates, "Developing Web Applications", Wiley, 2006.