MS-15-11 WEB ENGINEERING

Maximum marks: 100 External: 80
Time: 3 hours Internal: 20

Note: Examiner will be required to set NINE questions in all. Question Number 1 will consist of objective type/short-answer type questions covering the entire syllabus. In addition to question no. 1, the examiner is required to set eight more questions selecting two from each unit. Student will be required to attempt FIVE questions in all. Question Number 1 will be compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each Unit. All questions will carry equal marks.

UNIT-I

Introduction to Web Engineering: Categories and Characteristics of Web Applications, Web Applications Vs Conventional Software, Need for an Engineering Approach.

Web Essentials: The Internet, Basic Internet Protocols, WWW, HTTP (Structure of Request and Response Messages), Web Browser and its functions, URL, Web Servers and their features, Defining Virtual Hosts, Secure Servers.

UNIT-II

MarkUp Languages: Introduction to HTML, Characteristics, XHTML Syntax and Semantics, Fundamental HTML Elements, Lists, Tables, Frames, Forms, XHTML Abstract Syntax, Creating HTML Pages.

Cascading Style Sheets: Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning and other useful Style Properties.

UNIT-III

Client–Side Programming: Introduction to JavaScript, Perspective, Basic Syntax, Variables and Data types, Statements, Operators, Literals, Functions, Objects, Arrays, Built-in Objects, Debuggers.

Server-Side Programming: Servlet Architecture, Generating Dynamic Content, Servlet Life Cycle, Sessions, Cookies, URL Rewriting, Servlet Capabilities, Servlets and Concurrency.

UNIT-IV

XML: Relation between XML, HTML, SGML, Goals of XML, Structure and Syntax of XML, Well Formed XML, DTD and its Structure, Namespaces and Data Typing in XML, Transforming XML Documents, XPATH, Template based Transformations, Linking with XML, Displaying XML documents in Browsers.

Text Books:

1. Andrew King, "Website Optimization", Shroff Publishers, India.
2. Achyut Godbole, "Web Technologies", Tata McGraw Hill, India.

References Books:

1. Jeffrey C. Jackson, "Web Technologies", Pearson Education, India.
2. Thomas Powell, "The Complete Reference HTML", Tata McGraw Hill, India.
3. William Pardi, "XML in Action", IT Professional, New York, USA.