

INTRODUCTION TO WEB PROGRAMMING (CREDITS: 4)

Total Marks: 100

External Marks: 70

Internal Marks: 30

Credits: 4

Pass Percentage: 40%

Section A

Unit I: Introduction to Web Programming: Basic Concepts of WWW, Web page, Hyper Text Markup Language (HTML), Hypertext and Hypermedia, Hypertext Transfer Protocol, Server, Web Browsers, Uniform Resource Locator (URL), Domain Name, IP Address or Number, Characteristics of a Website.

Unit II: Web Programming: Client Side Scripting, Server Side Scripting, Static and Dynamic Websites, Frontend and Backend Development, Web Application Process Model, Web Programming Technologies: Programming Languages, Frameworks, Libraries, Databases.

Unit III : HTML: Introduction, HTML Tags, HTML DOM, Developing a Web Page, Commonly Used HTML Tags: Header and Footer, Text Formatting, Paragraphs, Text Style, Lists and Bullets, Creating Tables in HTML, Components of table, Border Attribute, Width and Height Attribute, Align Attribute, Cell Padding and Cell Spacing Attributes, Column Span and Row Span Attributes, Inserting Images in HTML, Hyperlinks, Hyperlink of an email, Hyperlink to another browser page, HTML Multimedia, HTML Plugins, HTML Forms

Unit IV: JavaScript-I: Introduction, JavaScript Syntax, JavaScript Program, JavaScript Variables, JavaScript Operators, JavaScript Data Types, JavaScript Functions, JavaScript Variable Scope: Global Scope, Local Scope, JavaScript Strings: String Length, Special Characters, Breaking Long Code lines, JavaScript Arrays: Converting Array to String, Popping and Pushing

Section - B

Unit V: JavaScript - II: Introduction, JavaScript Switch, JavaScript Loops, JavaScript Events, JavaScript Forms, JavaScript - III: Introduction, DOM Introduction, DOM Methods, DOM Document, DOM Events, JavaScript Window Screen, JavaScript Window Location, JavaScript Window Navigator, JavaScript Popup Boxes

Unit VI: jQuery: Introduction, How to Use jQuery, jQuery Selectors, Element Selector, ID Selector, jQuery Events, jQuery Effects, jQuery hide() and show(), jQuery fadeIn and fadeOut methods, jQuery slideToggle method, jQuery GET / SET, jQuery Get method, jQuery Set method, jQuery Ajax, Form Validation

Unit VII: AngularJS: Introduction, AngularJS Development Environment, Expressions in AngularJS, AngularJS Directives, Data Binding, AngularJS Model Modes, One Way Binding, Two Way Binding, AngularJS Controller, AngularJS Scope, AngularJS Filters, AngularJS Forms

Unit VII: Web Security: Introduction, Web Security, The Principles of Web Security.

Availability, Authentication, Authorization, Confidentiality, Auditing, Integrity, Common Client- Side Attacks, Eavesdropping Attacks, Man-in-the-Middle Attacks, Cross Site Request Forgery, UI Redressing, Session Hijacking, Cross-Site Scripting, Security Threats, SQL Injection, Form Validation and Security, CAPTCHA Role and Implementation