Preface

As we all know that computer has given us such innumerable opportunities of employment for which perhaps no body imagined till a decade ago. With the arrival of internet, achievements of computer science have enhanced even more. In present times, computer has become the largest medium of communication and has not remained merely a data processing machine. In this phenomenon of communication through computers, Internet and web have played very important role. Technically, Internet and Web both are diverse fields. If we understand in simple terms, we can say that Internet is a type of computer hardware in which computers worldwide are interconnected with each other. Whereas, web is a software medium used on this computer network through which users of Internet communicate and exchange information with each other. Web has made Internet the biggest highway of communication. Today, computer and Internet is being commercially used due to Web. Whether e-commerce or just simple exchange of information, for both, Web based on Internet acts as backbone.

To use Internet, we need to have such websites through which we can successfully accomplish financial e-commerce and other such transactions. Websites comprise of several pages, that means a website is constructed with more than one page. In technical language, work of constructing a website is called Web Designing. Language namely HTML is most extensively used in Web Designing. Besides, many other supporting software are used in which JavaScript, VBScript, ASP, Flash and Photoshop are main.

In current times, maximum employment opportunities are present in the field of web designing. Therefore, if you appropriately learn to operate the software used in this field, you can achieve an excellent career position for yourself. Since the beginning of Internet usage on smart phones, there is a big boom in the field of web designing. To operate web on mobile phone, app is used. This app actually is a smart form of a website. If we understand this phenomenon in computing language , an app is actually shortcut which is used to operate a website through a mobile phone.

In this web designing course, use of all those techniques and software are explained in a simple way through which web designing work is carried. This book is a complete course in itself which contains Basic Computer Fundamentals to Cyber Security and Cyber Law in details. It is trusted that you can make a bright career in web designing with the help of this book.

Suggestions and comments for further improvement in next edition from our esteemed readers are welcome.

– Author

Contents

1. Computer Fundamentals 1-16

Functionalities of a computer 3
Definition 3
Advantages 3
Disadvantages 4
History of Computer 5
Block Diagram of Computer 7
Types of Computer System 7
Different parts of a Computer 10
Computer Software 12
Windows Desktop 13

2. Microsoft Office 17-34

MS Office Reference 17-24
MS Word 25-27
MS Excel 28-30
MS Powerpoint 31-33
MS Office Basic Terms 34

3. Introduction to Web 35-48

Function 37
Web page 37
Home page 38
Website 38
Web browser 39
Search Engine 39
Web hosting 40
Web servers 41
What is Web Designing ? 41
Web Designing Tools 42
Skills and Techniques 42

4. Introduction to HTML 49-126

HTML Editing Tools 49
WYSIWYG Authoring Tools 52
Document Structure 52
HTML Tags 53

Good HTML Style 56
Specifying Color in HTML 57
Structural HTML Tags 57
Setting Up an HTML Document 61
Other header elements 61
Using <meta> Tags 64
Formatting Text 66
Working with HTML Text 74
Layout Techniques with HTML 78
Creating Links 81
Adding Images and Other Page Elements 84
Using Tables 90
Using Frames 95
Using Forms 99
Using Graphics or GIF Format 105
Multimedia and Interactivity 106
Audio on the Web 108
Video on the Web 112
Interactivity 115
Java Applets 117
Cascading Style Sheets 118
Dynamic HTML (DHTML) 122

5. Computer Graphics 127-136

2D computer graphics 128
Pixel art 128
Sprite graphics 129
Vector graphics 129
3-D Graphics 130
Computer animation 130
Image file sizes 131
Image resolution 132
Pixel resolution 132
Image file compression 133
Image file formats 133
Raster formats 133
Container formats of raster graphics editors 135
Vector formats 135
Other 2D vector formats 136
Compound formats 136

6. Design, Principle and Color Harmony 137-146

Web Design Principles Checklist 139
Primary audience 139
Purpose for the site 139
Location of the site 139
Types of content 139
Information provided on the “home” page 139
Content (the key to a good site) 140
Level of Web technology to best suit the purpose 140
Style to best suit the purpose 140

Page design - consistency, clarity, user friendliness 140
Resolution 141
Graphics 141
Background and text colors 141
Use of frames 141
What is protected by copyright rules on the WWW? 142
When creating a Web page, you can 142
When creating a Web page, you may be liable if you 142
Protect your privacy and reputation online 142
Basic Color Theory 143
The Color Wheel 143
Primary Colors: Red, yellow and blue 144
Secondary Colors: Green, orange and purple 144
Color Harmony 144
Some Formulas for Color Harmony 144
Color Context 145
RGB Color Model 146

7. Using Fonts with Web Designing 147-154

Bitmap fonts 148
Font Scaling 148
Bitmap font formats 149
Outline fonts 149
Outline font formats 150
Stroke-based fonts 151
Fonts for Website 151
Serif vs. Sans Serif 152
Sizing the Text 153
Adding Style 153

8. Web Designing Issues and Technical Issue 155-165

Technical issues in web designing 158
GIGW (Guidelines for Indian Government WebSites) 160
What are the benefits of making a website compliant to these guidelines? 161
Guidelines for Indian Government Websites? 161
Mandatory Guidelines 161
OWSP or OWASP 164
GCIG: The Global Commission on Internet Governance 164

9. Adobe Photoshop 166-214

Workspace of Adobe Photoshop 167
Photoshop Tools 168
Using the options bar 172
Duplicate an image 173
Working with Images 173
Create an Image 174
Open an Image files 175
Resizing images 175
Crop images 177
Rotate or flip an entire image 179
Retouch with the Clone Stamp tool 179

Retouch with the Healing Brush tool 180
Repair an area using a pattern, Remove red eye 181
Smudge image areas, Blur image areas 182
Sharpen image areas, Dodge or burn areas 183
Sharpen images 183
Choosing colors, Choose colors in the toolbox 184
Color models, spaces, and modes 185
Adjusting color hue, saturation, and brightness 185
RGB Color mode 185
CMYK Color mode 186
Lab Color mode, Grayscale mode, Bitmap mode 187
Duotone mode, Indexed Color mode 188
Convert an image to another color mode 188
Convert a color photo to Grayscale mode 188
Display the Color Picker 188
Choose a color using the CMYK model 189
Choose web-safe colors 189
Photoshop Color panel, Color Tone Correction 189
Color adjustment commands 190
Make a color adjustment 191
Adjust tonal range using Levels 191
Adjust color using Levels, Apply an Auto correction 193
Select, deselect, and reselect pixels 193
Reselect the most recent selection 193
Select with the marquee tools 194
Select with the Magic Wand tool 195
Move a selection 196
Entering Text or type 196
Enter point type 196
Enter paragraph type 197
Edit text, Character panel 198
Image Layer in Photosho 199
Working with Web Graphics 199
Creating rollover images 200
Working with hexadecimal color values 200
View hexadecimal color values in the Info panel 200
Copy a color as a hexadecimal value 201
Slicing web pages 201
Creating web photo galleries 207
Web photo gallery styles 208
Customize or create a web photo gallery style 209
Save For Web & Devices 209
Preview images in the dialog box 210
Print images 212
Photoshop print options and print 213
Reposition an image on the paper, Scale the print size of an image 214
Print part of an image 214

10. Using JavaScript for Dynamic Websites 215-229

JavaScript Basics 217

Sample Scripts 220
Use in web pages 222
Web interoperability, Web accessibility 224
Browser security 225
JavaScript and Java 229

11. Using ASP/VBScript 230-255
VBScript—An Introduction 232
VBScript Syntax 232
Enabling VBScript, VBScipt Placement in HTML File 234
VBScript Variables 237
VBScript constants, Operator 240
VBScript -Loops, Loop Control Statements, VBScript event 244
VBScript Cookies 245
VBScript Dialog Box 247
Reg Expressions 250
Error Handling 251
ASP (Active Server Pages) 253
Usage VBScript in ASP Pages 253

12. Using Adobe Flash 256-274
Applications of Flash 259
Flash Format 259
Flash Video, Flash Audio, Scripting language 260
Animation tools, Programming tools 261
Third-party tools, Adobe Flash Player, Animation basics 262
Frame rates 263
Frames and keyframes 265
Inverse kinematics 267
Timeline layers 268
Working with scenes 269
Exporting Sounds 270
Using video in Flash 273
Publishing Flash documents 274

13. Cyber Security and Cyber Law 275-301
Information Security Vulnerabilities 275
Security Threat 276
Risk management 283
Legal Framework 286
IT Amendment Act, 2008 289
The Role of Evidence in a Trial 292
Software Development Security 293
Protect your privacy on the Internet 295
Audit and Testing 297

Appendix: Web Glossary 302-304
Web Designing: Short Answer Type Question-Answers 305-312
Web Designing: MCQ's (Multiple Choice Questions) 313-327
Key to MCQs 328