Zed-King
GROUP OF INSTITUTIONS
ISO 9001 : 2015 Certified

EXPERT COMPUTER COURSE

HTML PROGRAMMING BASICS

Topics Covered:

#	Topic
1	Concepts of HTML — Introduction, History, How It Works
2	HTML Page Structure — DOCTYPE, Head, Body, All Tags
3	HTML Text Formatting Tags — Headings, Paragraphs, Lists, Formatting
4	HTML Links — Anchor Tag, Hyperlinks, Email Links, Anchors
5	HTML Images — img Tag, Attributes, Image Map
6	HTML Tables — Complete Table Structure, Attributes, Spanning
7	HTML Frames — Frameset, Frame, iFrame
8	CSS — Cascading Style Sheets, Types, Selectors, Properties
9	FrontPage and InterDev — Introduction and Features
10	Quick Revision + Important MCQ Questions

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SECTION 1: INTRODUCTION TO HTML

1.1 What is HTML?

> *HTML (HyperText Markup Language) is the standard language used to create and structure content on web pages. It uses tags to define the structure and meaning of web content. HTML is NOT a programming language — it is a markup language that describes the structure of a webpage.*

Term	Full Form	Meaning
H	HyperText	Text with links to other documents — clicking jumps to another page/location
T	Text	The content itself — written information displayed on web pages
M	Markup	Using special tags to define structure and formatting of content
L	Language	A system of tags with specific syntax rules

1.2 Brief History of HTML

Version	Year	Key Changes
HTML 1.0	1991	Tim Berners-Lee invented HTML at CERN. Basic tags: headings, paragraphs, links.
HTML 2.0	1995	First official standard. Added forms for user input.
HTML 3.2	1997	Added tables, applets, text flow around images. W3C released.
HTML 4.01	1999	Separated structure from presentation. Introduced CSS support. Added frames.
XHTML 1.0	2000	Stricter HTML using XML rules — all tags lowercase, properly closed.
HTML5	2014 (current)	Added semantic tags, audio, video, canvas, geolocation, local storage. No plugins needed.

1.3 How a Web Page Works

- Step 1: User types URL in browser (www.zedking.in)
- Step 2: Browser sends HTTP request to web server
- Step 3: Web server responds with HTML file
- Step 4: Browser reads (parses) HTML tags and renders the page visually
- Step 5: Browser also fetches linked CSS, JavaScript, and image files
- Web Server: Computer that stores website files and serves them to browsers
- Browser: Chrome, Firefox, Edge — reads HTML and displays it visually

SECTION 2: HTML PAGE STRUCTURE

2.1 Basic HTML Document Structure

> *Every HTML document follows a basic structure with specific sections. The browser uses this structure to understand what is metadata (about the page) and what is content (shown to the user).*

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
    <meta charset="UTF-8">
  </head>
  <body>
    <h1>My First Heading</h1>
    <p>My first paragraph.</p>
  </body>
</html>
```

Section	Tag	Description
Document Type	`<!DOCTYPE html>`	First line — tells browser this is HTML5. Not a tag, it is a declaration.
Root Element	`<html> ... </html>`	Wraps entire HTML document — parent of all other elements
Head Section	`<head> ... </head>`	Contains metadata — NOT shown on page. Holds title, styles, scripts, meta tags.
Page Title	`<title> ... </title>`	Text shown in browser tab / window title bar. Also used as bookmark name.
Meta Tag	`<meta charset='UTF-8'>`	Metadata about document — character encoding, description, keywords, viewport
Body Section	`<body> ... </body>`	Contains all visible content — text, images, links, tables etc. shown to user
Comments	`<!-- comment text -->`	Not displayed — notes for developers. Browser ignores these.

2.2 HTML Tags — Syntax Rules

> *HTML tags are keywords surrounded by angle brackets < >. Most tags come in pairs: an opening tag <tag> and a closing tag </tag>. Content goes between them.*

```
<tagname attribute="value"> Content here </tagname>
```

Tag Type	Description	Example
Opening Tag	Starts an element	, <h1>, , <a>
Closing Tag	Ends an element — has forward slash	, </h1>, ,
Self-Closing Tag	No content needed — opens and closes in one tag	 , <img>, <hr>, <input>

Tag Type	Description	Example
Attribute	Additional information inside the opening tag	<img src='photo.jpg' alt='My photo'>
Attribute Value	The value of the attribute — in quotes	href='https://google.com', width='300'
Nested Tags	Tags inside other tags — must be properly nested	Bold inside paragraph

2.3 Important Head Section Tags

Tag	Purpose	Example
<title>	Page title — shown in browser tab	<title>Zed King Institute</title>
<meta charset>	Character encoding — use UTF-8 for all languages including Hindi	<meta charset='UTF-8'>
<meta name='description'>	Page description shown in Google search results	<meta name='description' content='Best computer institute in Kaithal'>
<meta name='keywords'>	Keywords for search engines (less important now)	<meta name='keywords' content='HTML, CSS, computer course'>
<meta name='viewport'>	Mobile responsive — tells browser to match device width	<meta name='viewport' content='width=device-width, initial-scale=1.0'>
<link>	Links external CSS stylesheet	<link rel='stylesheet' href='style.css'>
<style>	Embeds CSS directly in HTML head	<style> body { color: blue; } </style>
<script>	Links or embeds JavaScript	<script src='app.js'></script>

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SECTION 3: HTML TEXT FORMATTING

3.1 Heading Tags

> *HTML provides 6 levels of headings from h1 (largest, most important) to h6 (smallest, least important). Search engines use h1 to understand the main topic of a page.*

```
<h1>Heading 1 - Largest (Page Title)</h1>
<h2>Heading 2 - Section Title</h2>
<h3>Heading 3 - Sub-section</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6 - Smallest</h6>
```

3.2 Paragraph and Line Break Tags

Tag	Description	Example
	Defines a paragraph — adds space before and after	This is a paragraph.
 	Line break — moves to next line without starting new paragraph (self-closing)	First line Second line
<hr>	Horizontal rule — draws a horizontal line across page	<hr> (separates sections)
<pre>	Preformatted text — preserves spaces and line breaks exactly as typed	<pre> Name: Ajay</pre>
<blockquote>	Block quotation — indents quoted text from another source	<blockquote>Quote here</blockquote>
<q>	Inline quotation — adds quotation marks automatically	<q>Short quote</q>
<abbr>	Abbreviation — shows full form as tooltip on hover	<abbr title='World Wide Web'>WWW</abbr>

3.3 Text Formatting Tags

Tag	Effect	Example Code	Output
	Bold text (visual only — no semantic meaning)	Bold Text	Bold Text
	Bold + semantically important (screen readers emphasise)	Important	Important (bold)
	Italic text (visual only)	Italic Text	Italic Text
	Italic + semantic emphasis	Emphasis	Emphasis (italic)
<u>	Underlined text	<u>Underlined</u>	Underlined
<s> / <strike>	Strikethrough — text with line through it	<s>Old Price Rs.500</s>	Old Price Rs.500

Tag	Effect	Example Code	Output
<sup>	Superscript — small text above baseline	H²O	H²O
<sub>	Subscript — small text below baseline	CO₂	CO_2
<mark>	Highlighted text (yellow background)	<mark>Highlighted</mark>	Highlighted
<small>	Smaller text than surrounding	Fine print	Fine print
<big>	Larger text (deprecated in HTML5)	<big>Big text</big>	Larger text
<tt>	Teletype/monospace font (deprecated)	<tt>Code font</tt>	Monospace
	Centre-align (deprecated — use CSS)	Centered	Centred text
	Set font face/colour/size (deprecated — use CSS)	Red text	Red text

> **Exam Tip:** <b> = just bold visually. = bold + important (semantic). <i> = just italic. = italic + emphasis (semantic). Use semantic tags for better accessibility and SEO.

3.4 Lists

List Type	Tags Used	Description	Example
Unordered List (bullet)	`<ul> + <li>`	Creates bulleted list — order doesn't matter	Shopping list, features list
Ordered List (numbered)	`<ol> + <li>`	Creates numbered/lettered list — order matters	Steps, rankings, procedures
Definition List	`<dl> + <dt> + <dd>`	Term-description pairs — like a dictionary	Glossary, FAQ list

```
<ul>
  <li>HTML</li>
  <li>CSS</li>
  <li>JavaScript</li>
</ul>
```

```
<ol type="1">           <!-- type: 1=numbers, A=uppercase, a=lowercase,
I=Roman -->
  <li>Step One</li>
  <li>Step Two</li>
</ol>
```

```
<dl>
  <dt>HTML</dt>
  <dd>HyperText Markup Language</dd></dl>
```

SECTION 4: HTML LINKS

4.1 The Anchor Tag <a>

> *The <a> (anchor) tag creates hyperlinks — clickable elements that take users to another page, file, location on same page, or open email. The most important attribute is href (Hypertext Reference).*

```
<a href="URL">Link Text</a>
```

Attribute	Description	Example Value
href	Destination URL or path (required for link)	https://www.google.com OR page2.html
target	Where to open the link	_blank (new tab), _self (same tab, default), _parent, _top
title	Tooltip text shown when hovering over link	title='Visit Google'
download	Download the linked file instead of opening	download='report.pdf'
rel	Relationship between current page and linked page	rel='noopener' (security for _blank links)

4.2 Types of Links

Link Type	Syntax	Description
External Link	`<a href='https://google.com'>Go to Google</a>`	Links to another website — use full URL with https://
Internal Link	`<a href='about.html'>About Us</a>`	Links to another page on same website — relative path
Link in New Tab	`<a href='https://google.com' target='_blank'>Open in New Tab</a>`	target='_blank' opens in new browser tab/window
Anchor Link (same page)	`<a href='#section2'>Jump to Section 2</a>`	Links to specific id on same page — '#' + id name
Email Link	`<a href='mailto:info@zedking.in'>Email Us</a>`	Opens default email client with pre-filled address
Phone Link	`<a href='tel:+919876543210'>Call Us</a>`	On mobile, tapping opens phone dialler
Image as Link	`<a href='home.html'><img src='logo.png'></a>`	Clicking the image navigates to the link

4.3 Named Anchors (Bookmark within page)

> *Named anchors allow you to jump to a specific section within the same page. First, mark the destination with an id attribute, then create a link to #id.*

```
<!-- Step 1: Create destination anchor with id -->
<h2 id="contact">Contact Us</h2>
```

```
<!-- Step 2: Create link to that id -->
<a href="#contact">Jump to Contact Section</a>
```

4.4 Absolute vs Relative Paths

Path Type	Description	Example
Absolute URL	Full complete web address including protocol and domain	https://www.zedking.in/courses/html.html
Relative Path — Same Folder	File in same folder — just filename	About
Relative Path — Sub-folder	File in a sub-folder	Contact
Relative Path — Parent Folder	../ means go up one folder level	Home
Root-relative Path	/ means start from website root folder	CSS

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SECTION 5: HTML IMAGES

5.1 The Image Tag <img>

> *The <img> tag is used to embed images in a web page. It is a self-closing (void) tag — no closing tag needed. The src attribute specifies the image source path.*

```
<img src="image.jpg" alt="Description" width="300" height="200">
```

Attribute	Required?	Description	Example
src	Yes	Source path or URL of the image	src='photo.jpg' OR src='https://site.com/img.png'
alt	Yes (for accessibility)	Alternative text — shown if image fails to load; read by screen readers	alt='Student learning computer at Zed King'
width	Optional	Width of image in pixels or percentage	width='300' OR width='50%'
height	Optional	Height of image in pixels	height='200'
title	Optional	Tooltip text shown when hovering over image	title='Computer Lab Photo'
loading	Optional	lazy = load only when visible (performance); eager = load immediately	loading='lazy'
border	Optional (deprecated)	Border around image — use CSS instead	border='2'

5.2 Supported Image Formats for Web

Format	Use In Web?	Best For
JPEG (.jpg)	Yes — universal	Photographs, images with many colours
PNG (.png)	Yes — universal	Images needing transparency, logos, screenshots
GIF (.gif)	Yes	Simple animations, icons with limited colours
SVG (.svg)	Yes (modern browsers)	Logos, icons — scales to any size without blur
WebP (.webp)	Yes (modern browsers)	Best compression for web — replaces JPEG/PNG
BMP (.bmp)	Limited — avoid	Too large for web use
TIFF (.tif)	Not recommended	Too large — for print only

5.3 Image Map

> *An Image Map allows different areas (regions) of a single image to link to different URLs. Each clickable region is defined by coordinates.*

```
<img src="india_map.jpg" alt="India Map" usemap="#india">

<map name="india">
```

```
  <area shape="rect" coords="100,50,200,150" href="delhi.html"
alt="Delhi">
  <area shape="circle" coords="300,200,50" href="mumbai.html"
alt="Mumbai">
  <area shape="poly" coords="150,300,200,350,100,350"
href="chennai.html" alt="Chennai">
</map>
```

Shape	coords Values	Description
rect	x1,y1,x2,y2	Rectangle — top-left corner and bottom-right corner coordinates
circle	cx,cy,radius	Circle — centre x, centre y, and radius
poly	x1,y1,x2,y2,x3,y3...	Polygon — list of x,y coordinate pairs for each vertex
default	—	Entire image — used as fallback link for unspecified areas

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SECTION 6: HTML TABLES

6.1 Table Structure

> *HTML tables are used to display data in rows and columns. Tables should be used for tabular data only — NOT for page layout (use CSS for layout instead).*

```
<table border="1">
  <caption>Student Marks Table</caption>
  <thead>
    <tr>
      <th>Student Name</th>
      <th>Subject</th>
      <th>Marks</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Ajay</td>
      <td>HTML</td>
      <td>95</td>
    </tr>
    <tr>
      <td>Priya</td>
      <td>HTML</td>
      <td>88</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <td colspan="2">Average</td>
      <td>91.5</td>
    </tr>
  </tfoot>
</table>
```

6.2 Table Tags Explained

Tag	Description
<table>	Container for the entire table — parent of all table elements
<caption>	Table title/caption displayed above the table
<thead>	Table header section — groups header rows (optional but good practice)
<tbody>	Table body section — contains main data rows
<tfoot>	Table footer section — contains summary/total rows
<tr>	Table Row — defines a row in the table. Contains <td> or <th> cells.
<th>	Table Header Cell — bold, centred by default. Used for column/row headings.
<td>	Table Data Cell — regular data cell. Contains actual content.

6.3 Table Attributes

Attribute	Applies To	Description	Example
border	`<table>`	Shows border around table and cells (use CSS instead)	border='1'
width	`<table>, <td>, <th>`	Width of table or cell in pixels or %	width='600' or width='50%'
height	`<table>, <td>, <th>`	Height of table or cell	height='40'
cellpadding	`<table>`	Space between cell content and cell border	cellpadding='5'
cellspacing	`<table>`	Space between cells	cellspacing='3'
align	`<table>, <td>`	Horizontal alignment: left, center, right	align='center'
valign	`<td>, <th>`	Vertical alignment: top, middle, bottom	valign='top'
bgcolor	`<table>, <td>`	Background colour (use CSS instead)	bgcolor='#FFFF00'
colspan	`<td>, <th>`	Merge cells horizontally — span multiple columns	colspan='2'
rowspan	`<td>, <th>`	Merge cells vertically — span multiple rows	rowspan='3'

6.4 Colspan and Rowspan Examples

```
<!-- colspan: cell spans 2 columns horizontally -->
<tr>
  <td colspan="2">Merged: spans 2 columns</td>
  <td>Normal cell</td>
</tr>
```

```
<!-- rowspan: cell spans 2 rows vertically -->
<tr>
  <td rowspan="2">Merged: spans 2 rows</td>
  <td>Row 1, Column 2</td>
</tr>
<tr>
  <td>Row 2, Column 2</td>   <!-- no first cell - already covered by
rowspan -->
</tr>
```

> **Exam Tip:** colspan = horizontal merge (across columns). rowspan = vertical merge (across rows). Table structure: table > thead/tbody/tfoot > tr > th/td.

SECTION 7: HTML FRAMES

7.1 What are Frames?

> *HTML Frames divide the browser window into multiple independent sections, each displaying a separate HTML page. Frames were popular before CSS layouts — now they are largely obsolete and deprecated in HTML5. The <iframe> inline frame is still widely used.*

- Frameset: Divides browser window into multiple frame sections
- Frame: Each individual section — loads a separate HTML page
- Important: <frameset> REPLACES <body> — you cannot have both in the same page
- Frames are deprecated in HTML5 — use CSS/flexbox/grid for layout instead

7.2 Frameset and Frame Tags

```
<!-- frameset.html -->
<!DOCTYPE html>
<html>
<head><title>Frames Example</title></head>

<!-- Divides window into columns: left 25%, right 75% -->
<frameset cols="25%,75%">
  <frame src="menu.html" name="menuframe">
  <frame src="content.html" name="mainframe">
  <noframes>
    <p>Your browser does not support frames.</p>
  </noframes>
</frameset>
</html>
```

```
<!-- Divides window into rows: top 80px, remaining for content -->
<frameset rows="80,*">
  <frame src="header.html" name="header">
  <frame src="body.html" name="content">
</frameset>
```

7.3 Frameset and Frame Attributes

Attribute	Applies To	Description	Example
cols	`<frameset>`	Divide window into columns — pixel, %, * (remaining space)	cols='200,*' or cols='25%,75%'
rows	`<frameset>`	Divide window into rows — pixel, %, * (remaining space)	rows='80,*' or rows='20%,80%'
src	`<frame>`	URL of the HTML page to load in this frame	src='menu.html'
name	`<frame>`	Name of the frame — used as target for links	name='content'
scrolling	`<frame>`	yes/no/auto — controls scroll bars in frame	scrolling='no'

Attribute	Applies To	Description	Example
noresize	<frame>	Prevents user from resizing the frame	noresize='noresize'
frameborder	<frame>	Show/hide frame border: 0 (no border) or 1	frameborder='0'
marginwidth	<frame>	Left and right margins inside frame in pixels	marginwidth='10'
marginheight	<frame>	Top and bottom margins inside frame in pixels	marginheight='10'
<noframes>	Inside frameset	Content shown to browsers that don't support frames	<noframes>Not supported</noframes>

7.4 Targeting Links in Frames

> *When using frames, links in one frame can open pages in another frame using the target attribute with the frame's name.*

```
<!-- In menu.html (left frame named 'menuframe') -->
<a href="home.html" target="mainframe">Home</a>
<a href="about.html" target="mainframe">About</a>
<a href="contact.html" target="mainframe">Contact</a>
```

target Value	Description
framename	Opens in specified frame — e.g., target='mainframe'
_blank	Opens in new browser window/tab
_self	Opens in same frame (current frame — default)
_parent	Opens in parent frameset
_top	Opens in full browser window — breaks out of all frames

7.5 Inline Frames — <iframe>

> *An <iframe> (inline frame) embeds another HTML page or web content inside the current page. Unlike frameset frames, iframes are placed within the <body> and are still widely used (YouTube videos, Google Maps, etc.).*

```
<iframe src="https://www.youtube.com/embed/VIDEO_ID"
        width="560" height="315"
        title="Tutorial Video"
        frameborder="0"
        allowfullscreen>
</iframe>
```

iframe Attribute	Description
src	URL of page to embed inside iframe
width	Width of iframe in pixels or percentage
height	Height of iframe in pixels
title	Accessibility title describing iframe content

iframe Attribute	Description
frameborder	0 = no border; 1 = show border
scrolling	yes/no/auto — whether iframe can scroll
allowfullscreen	Allows iframe content (video) to go fullscreen
sandbox	Restricts what iframe content can do — security
name	Name for targeting links into this iframe

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SECTION 8: CSS — CASCADING STYLE SHEETS

8.1 What is CSS?

> *CSS (Cascading Style Sheets) is a stylesheet language used to control the visual presentation (design) of HTML elements — colour, font, size, spacing, layout, and more. HTML provides structure; CSS provides style.*

- Without CSS: Dull, plain text in black and white with default browser formatting
- With CSS: Beautiful, colourful, professionally designed websites
- Separation of Concerns: HTML = structure and content | CSS = visual design | JavaScript = behaviour

8.2 Three Ways to Apply CSS

Type	Where Written	Syntax	Best For
Inline CSS	Inside HTML tag, style attribute	Text	Quick single-element styling; not recommended for large projects
Internal CSS	`Inside <style> in <head> section`	<style> p { color:red; } </style>	Single-page styling; when only one page needs unique styles
External CSS	`Separate .css file linked with <link>`	<link rel='stylesheet' href='style.css'>	Best practice — one file styles entire website; easy maintenance

```
/* External CSS file: style.css */
body {
  background-color: #f0f0f0;
  font-family: Arial, sans-serif;
  font-size: 16px;
}

h1 {
  color: #1F4E79;
  text-align: center;
}

p {
  color: #333333;
  line-height: 1.6;
}
```

8.3 CSS Selectors

Selector	Syntax	Description	Example
Element / Tag	tagname { }	Targets all elements of that tag	p { color: blue; } (all tags)

Selector	Syntax	Description	Example
Class	.classname { }	Targets elements with that class attribute	<p class='highlight'> → .highlight { }
ID	#idname { }	Targets ONE element with that id — must be unique	→ #header { }
Universal	* { }	Targets ALL elements on the page	* { margin: 0; padding: 0; }
Descendant	ancestor descendant	Targets descendant inside ancestor	div p { } — all <p> inside a
Child	parent > child	Direct children only	ul > li { } — only direct of
Group	sel1, sel2	Apply same style to multiple selectors	h1, h2, h3 { color: navy; }
Hover Pseudo-class	selector:hover { }	Applies when mouse hovers over element	a:hover { color: red; }
First Child	selector:first-child	Targets first child element	li:first-child { font-weight: bold; }
Attribute	[attribute]	Targets elements with specific attribute	input[type='text'] { border: 1px; }

8.4 CSS Properties

Category	Property	Description	Example Value
Text	color	Text colour — name, hex, rgb	color: red; OR color: #FF0000; OR color: rgb(255,0,0)
Text	font-family	Font typeface	font-family: Arial, sans-serif;
Text	font-size	Text size — px, em, rem, %	font-size: 16px; OR font-size: 1rem;
Text	font-weight	Bold or thin	font-weight: bold; OR font-weight: 700;
Text	font-style	Normal, italic, oblique	font-style: italic;
Text	text-align	Horizontal alignment	text-align: center; OR left; OR right; OR justify
Text	text-decoration	Underline, overline, line-through, none	text-decoration: underline; OR none; (removes link underline)
Text	text-transform	UPPERCASE, lowercase, Capitalize	text-transform: uppercase;
Text	line-height	Spacing between lines	line-height: 1.6; OR 24px;
Background	background-color	Background fill colour	background-color: #FFFFFF; OR lightblue;
Background	background-image	Background image	background-image: url('bg.jpg');

Category	Property	Description	Example Value
Background	background-size	Control image size	background-size: cover; OR contain;
Box	width	Element width	width: 300px; OR width: 50%;
Box	height	Element height	height: 200px; OR height: auto;
Box	margin	Space OUTSIDE element border	margin: 20px; OR margin: 10px 20px;
Box	padding	Space INSIDE element border	padding: 15px;
Box	border	Border around element	border: 2px solid #333;
Box	border-radius	Rounded corners	border-radius: 8px; OR 50% (circle)
Display	display	How element is laid out	display: block; OR inline; OR flex; OR none;

8.5 The CSS Box Model

> *Every HTML element is a rectangular box. The CSS Box Model describes the space an element takes: Content → Padding → Border → Margin (from inside to outside).*

```
div {
  width: 300px;          /* Content area width */
  padding: 20px;         /* Space inside, between content and border */
  border: 2px solid #333; /* Border around the element */
  margin: 10px;          /* Space outside, between this element and
others */
}
/* Total space taken = 300 + 20+20 (padding) + 2+2 (border) + 10+10
(margin) = 364px */
```

Box Model Layer	Description
Content	The actual content — text, image, video. Defined by width and height.
Padding	Clear space INSIDE the border — between content and border. Same background as content.
Border	Line around the padding and content. Can be styled with width, style, colour.
Margin	Clear space OUTSIDE the border — between this element and neighbouring elements. Always transparent.

8.6 CSS Colours

Colour Format	Example	Description
Named colours	color: red; / color: blue;	140+ colour keywords: red, green, blue, navy, coral, etc.
Hexadecimal	color: #FF0000; / color: #1F4E79;	# + 6 hex digits: RRGGBB. Most common web format.

Colour Format	Example	Description
Short hex	color: #F00; / color: #09C;	# + 3 digits (shorthand for repeating pairs)
RGB	color: rgb(255, 0, 0);	Red, Green, Blue values 0-255 each
RGBA	color: rgba(255, 0, 0, 0.5);	RGB + Alpha (opacity) 0.0 (invisible) to 1.0 (solid)
HSL	color: hsl(0, 100%, 50%);	Hue (0-360°), Saturation (%), Lightness (%)

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SECTION 9: FRONTPAGE AND INTERDEV

9.1 Microsoft FrontPage

> *Microsoft FrontPage was a WYSIWYG (What You See Is What You Get) web design and management tool by Microsoft. It allowed users to create websites visually without writing HTML code manually, similar to how MS Word works for documents. It was included in Microsoft Office from 1997 to 2003.*

Feature	Description
Type	WYSIWYG Web Editor + Website Management Tool
Included With	Microsoft Office 97, 2000, XP, 2003 (removed in Office 2007)
File Extension	.htm / .html pages; .fpb (FrontPage web)
Views	Normal (visual), HTML (code), Preview (browser-like)
WYSIWYG	Design web pages visually — tables, images, text without writing code
Templates	Pre-designed themes and page templates for quick website creation
Navigation	Automatic navigation bars and site navigation management
FrontPage Extensions	Server-side features (forms, search, counters) required FrontPage Server Extensions on web host
Successor	Microsoft Expression Web (2006-2012) → Discontinued. Now replaced by Visual Studio Code, Adobe Dreamweaver.

9.2 FrontPage Interface

Interface Element	Description
Page View	Normal: visual WYSIWYG | HTML: source code | Preview: browser view
Folder View	Shows all files and folders of the website — file management
Navigation View	Visual site map showing page hierarchy and navigation structure
Tasks View	To-do list for website development tasks
Toolbars	Standard, Formatting, Tables, Drawing toolbars — like MS Office
FrontPage Explorer	Separate application managing overall website structure (older versions)

9.3 Microsoft Visual InterDev

> *Microsoft Visual InterDev was a web development IDE (Integrated Development Environment) for building dynamic, database-driven websites using ASP (Active Server Pages), HTML, CSS, and JavaScript. It was part of the Microsoft Visual Studio family.*

Feature	Description
Full Name	Microsoft Visual InterDev
Type	Web Application IDE — for professional web developers
Version History	Visual InterDev 1.0 (1996), Visual InterDev 6.0 (1998)

Feature	Description
Target	Professional developers building dynamic server-side web applications
Technology Support	ASP (Active Server Pages), HTML, CSS, JavaScript, VBScript, JScript
Database Integration	Built-in data environment for connecting to SQL Server, Access, Oracle
IntelliSense	Auto-complete for HTML tags, CSS properties, JavaScript functions
Debugging	Built-in debugger for client and server-side scripts
Successor	Visual InterDev was merged into Visual Studio .NET in 2002 — succeeded by Visual Studio and now VS Code

Feature	FrontPage	Visual InterDev
Target User	Beginners, non-developers, small businesses	Professional web developers
Coding Required	No — visual/WYSIWYG primarily	Yes — code-centric IDE
Server-Side Tech	Basic (FrontPage Extensions)	ASP, VBScript, JScript, database integration
Database Integration	Limited	Full SQL Server, Access, Oracle support
Best For	Simple static websites	Dynamic, database-driven web applications
Current Status	Discontinued 2006	Merged into Visual Studio .NET in 2002

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SECTION 10: QUICK REVISION POINTS

Key Points for Exam

HTML Basics

- HTML = HyperText Markup Language. Created by Tim Berners-Lee in 1991. Current version = HTML5.
- Tag syntax: <tagname attribute='value'> content </tagname>. Self-closing: <br>, <img>, <hr>.
- Structure: <!DOCTYPE html> → <html> → <head> (title, meta, CSS) + <body> (visible content)
- Heading levels: <h1> (largest, most important) to <h6> (smallest)

Text & Links

- <b>=bold, =bold+semantic, <i>=italic, =italic+semantic, <u>=underline, <sup>=superscript, <sub>=subscript
- <a href='URL'> = hyperlink. target='_blank' = new tab. href='#id' = same-page jump. href='mailto:' = email link.
- colspan = horizontal merge (columns). rowspan = vertical merge (rows).

CSS

- 3 types: Inline (style=''), Internal (<style> in head), External (.css file — best practice)
- Selectors: tag { }, .class { }, #id { }, * { } (all), :hover pseudo-class
- Box Model: Content → Padding → Border → Margin (inside to outside)
- Important properties: color, font-size, font-family, background-color, width, height, margin, padding, border

Tables & Frames

- Table: <table> > <thead>/<tbody>/<tfoot> > <tr> > <th>/<td>
- Frames: <frameset> replaces <body>. cols='25%,75%' splits columns. rows='80,*' splits rows.
- <iframe> = inline frame, still used today (YouTube embed, Google Maps)
- FrontPage = WYSIWYG web editor (beginners). InterDev = ASP web IDE (professionals). Both discontinued.

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SECTION 11: IMPORTANT MCQ QUESTIONS

Multiple Choice Questions (MCQs)

> *20 important exam questions. Correct answer marked with ✓ and explanation provided.*

Q1. HTML stands for:

(a) High Text Markup Language
(b) HyperText Markup Language ✓
(c) HyperText Making Language
(d) Hyper Transfer Markup Language

Explanation: *HTML = HyperText Markup Language. 'HyperText' = text with links to other documents. 'Markup' = using tags to define structure. HTML was invented by Tim Berners-Lee in 1991.*

Q2. Which HTML tag is used to define the LARGEST heading?

(a) <h6>
(b) <heading>
(c) <h1> ✓
(d) <big>

Explanation: *<h1> defines the largest and most important heading. HTML has 6 heading levels: <h1> (largest/most important) to <h6> (smallest/least important). <h1> is also used by search engines to understand page content.*

Q3. What is the correct HTML tag for inserting a line break?

(a) <break>
(b) <lb>
(c) <newline>
**(d)
 ✓**

Explanation: *
 is the self-closing line break tag — it moves to the next line without starting a new paragraph. It has no closing tag. <p> creates a full paragraph with space before and after.*

Q4. Which attribute in the <a> tag makes a link open in a new browser tab?

(a) target='_new'
(b) target='_blank' ✓
(c) target='_tab'
(d) target='_open'

Explanation: *target='_blank' opens the linked page in a new browser tab or window. target='_self' = same tab (default). target='_top' = full window breaking out of frames. target='_parent' = parent frame.*

Q5. Which tag is used to insert an image in HTML?

(a) <image src="">
(b) <picture>
(c) <img src=""> ✓
(d) <photo>

Explanation: *<img> is the self-closing tag for images. The src attribute specifies the image file path. The alt attribute provides alternative text. Example: <img src='photo.jpg' alt='Description'>*

Q6. Which attribute of <img> provides alternative text for accessibility and if image fails to load?

(a) src
(b) title

(c) href

(d) alt ✓

Explanation: *The alt (alternative text) attribute describes the image for: screen readers (accessibility for visually impaired), display when image fails to load, and SEO (search engines read alt text). alt is considered required for good practice.*

Q7. What does colspan attribute do in a table?

(a) Makes a cell span multiple rows vertically

(b) Makes a cell span multiple columns horizontally ✓

(c) Sets the colour of a column

(d) Sets the width of a column

Explanation: *colspan makes a table cell span (merge across) multiple columns horizontally. rowspan makes a cell span multiple rows vertically. Example: <td colspan='3'> merges 3 columns into one cell.*

Q8. Which CSS selector targets elements with a specific class name?

(a) #classname

(b) tagname

(c) *classname

(d) .classname ✓

Explanation: *.classname (with a dot/period) targets all HTML elements that have class='classname'. #idname targets by ID. tagname targets by HTML tag. * targets everything. Example: .highlight { background: yellow; }*

Q9. Which is the BEST PRACTICE method of including CSS in a web page?

(a) Inline CSS in every tag

(b) Internal CSS in <style> in head

(c) External CSS file linked with <link> ✓

(d) No CSS needed

Explanation: *External CSS (a separate .css file linked with <link rel='stylesheet' href='style.css'>) is best practice. One CSS file can style the entire website. Easy to maintain — change one file instead of every page.*

Q10. In the CSS Box Model, which layer is OUTERMOST?

(a) Content

(b) Padding

(c) Border

(d) Margin ✓

Explanation: *The CSS Box Model from inside to outside: Content → Padding → Border → Margin. Margin is the outermost — it creates space between this element and other elements. Padding is inside the border. Content is the innermost.*

Q11. Which HTML tag creates a numbered (ordered) list?

(a)

(b) <dl>

(c) ✓

(d) <list>

Explanation: * (Ordered List) creates a numbered list. (Unordered List) creates a bulleted list. Both use <li> for each item. <ol type='A'> makes A,B,C list; type='I' makes Roman numerals.*

Q12. In HTML frames, which tag REPLACES the <body> tag?

(a) <frame>

(b) <iframes>

(c) <noframes>

(d) <frameset> ✓

Explanation: *<frameset> replaces the <body> tag when using frames. You CANNOT have both <frameset> and <body> in the same HTML document. <frameset> divides the browser window into sections. <frame> defines each section.*

Q13. Which attribute of <frameset> divides the window into horizontal rows?

(a) cols
(b) rows ✓
(c) frames
(d) sections

Explanation: *rows attribute of <frameset> divides the browser window into horizontal sections (rows). cols attribute divides into vertical sections (columns). Example: <frameset rows='80,*'> creates a top row of 80px and the remaining space below.*

Q14. What is an <iframe>?

(a) A deleted frame tag
(b) An inline frame that embeds another page within the current page ✓
(c) A type of image frame
(d) A frameset for mobile

Explanation: *<iframe> (inline frame) embeds another HTML document or web resource within the current page. Unlike frameset frames, iframes are placed within <body> and are still widely used — YouTube video embeds use <iframe>.*

Q15. Microsoft FrontPage was what type of application?

(a) A database management system
(b) A WYSIWYG web editor for creating websites visually ✓
(c) A server-side programming language
(d) An image editing tool

Explanation: *Microsoft FrontPage was a WYSIWYG (What You See Is What You Get) web editor — users could design web pages visually without writing HTML code, similar to MS Word for documents. It was part of Microsoft Office.*

Q16. Visual InterDev was primarily used for:

(a) Creating simple static HTML pages visually
(b) Building dynamic database-driven web applications with ASP ✓
(c) Editing PDF documents
(d) Creating spreadsheets

Explanation: *Visual InterDev was a professional web IDE for building dynamic, database-driven websites using ASP (Active Server Pages), HTML, CSS, JavaScript. It targeted developers, not beginners (FrontPage was for beginners).*

Q17. Which CSS property changes the background colour of an element?

(a) color
(b) font-color
(c) bg-color
(d) background-color ✓

Explanation: *background-color sets the background colour. color sets the text colour. There is no 'font-color' or 'bg-color' property in CSS. Example: body { background-color: #f0f0f0; } p { color: #333; }*

Q18. What is the correct HTML to create a hyperlink?

(a) <link href='url'>Click</link>
(b) Click ✓
(c) <hyperlink='url'>Click</hyperlink>
(d) <url='url'>Click</url>

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Explanation: *Link Text is the correct anchor tag for creating hyperlinks. The href attribute contains the destination URL. 'a' stands for anchor. Example: Go to Google*

Q19. Which attribute makes a table cell merge across multiple rows?

(a) colspan
(b) rowspan ✓
(c) cellspan
(d) multirow

Explanation: *rowspan makes a <td> or <th> span (stretch) across multiple rows vertically. colspan spans horizontally across columns. Example: <td rowspan='3'> makes one cell take space of 3 rows in that column.*

Q20. What does the CSS rule 'a:hover { color: red; }' do?

(a) Makes all links permanently red
(b) Changes link colour to red when the mouse hovers over it ✓
(c) Removes link underline
(d) Makes links blink red

Explanation: *:hover is a CSS pseudo-class that applies a style when the mouse cursor hovers over an element. a:hover { color: red; } changes link text colour to red when user's mouse is positioned over the link — reverts when mouse moves away.*

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Best of Luck for Your Exam!

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