FAIZ COMPUTER INSTITUTE

HTML Syllabus

1. Introduction to HTML

- What is HTML? Overview of HTML and its role in web development
- Structure of an HTML document
- Basic tags and elements (`<html>`, `<head>`, `<body>`, etc.)
- HTML syntax and rules
- Opening and closing tags, attributes, and comments in HTML

2. HTML Document Structure

- Doctype declaration
- Structure of a complete HTML document
- `<html>`, `<head>`, `<title>`, `<body>`
- Meta tags and their importance
- Character encoding (UTF-8) and `<meta>` tag usage

3. Text and Formatting

- Headings (`<h1>` to `<h6>`) and paragraph tags (`<p>`)
- Text formatting tags (`<b>`, `<i>`, `<u>`, `<strong>`, `<em>`, etc.)
- Lists: Ordered lists (`<ol>`), unordered lists (`<ul>`), and definition lists (`<dl>`)
- Line breaks and horizontal rules (`<br>`, `<hr>`)
- Block-level vs inline elements

4. Links and Navigation

- Creating hyperlinks with the `<a>` tag
- Attributes: `href`, `target`, `title`
- Internal and external links
- Anchor links (navigation within the same page)
- Linking to email addresses with `mailto:`
- Navigation menus using lists and anchor tags

5. Images and Multimedia

- Embedding images using the `<img>` tag
- Attributes of `<img>`: `src`, `alt`, `width`, `height`
- Image formats (JPG, PNG, SVG, GIF, etc.)
- Embedding audio and video using `<audio>` and `<video>` tags
- Controlling media with attributes like `controls`, `autoplay`, `loop`
- Introduction to embedding third-party content (YouTube videos, etc.)

6. Tables

- Creating tables with `<table>`, `<tr>`, `<td>`, and `<th>`
- Table attributes: `border`, `cellspacing`, `cellpadding`
- Colspan and rowspan attributes for merging cells
- Styling tables with CSS for better presentation

7. Forms and Input Elements

- Introduction to forms: `<form>`, `action`, `method` attributes
- Input types: `<input>`, `<textarea>`, `<button>`, `<select>`, `<option>`
- Form controls: Text fields, radio buttons, checkboxes, dropdowns, date pickers, file upload
- Form validation (HTML5 validation attributes like `required`, `pattern`, `min`, `max`, etc.)
- Action buttons and form submission

8. Semantic HTML Elements

- Importance of semantic HTML for SEO and accessibility
- Structural tags: `<header>`, `<footer>`, `<nav>`, `<main>`, `<section>`, `<article>`, `<aside>`, `<figure>`, `<figcaption>`
- Difference between semantic and non-semantic tags
- Benefits of using semantic tags in modern web development

9. HTML5 Features

- New HTML5 elements: `<section>`, `<article>`, `<footer>`, `<header>`, `<nav>`
- HTML5 APIs: Web Storage, Local Storage, Session Storage
- `<canvas>` and `<svg>` for graphics
- New form controls: `<input type="email">`, `<input type="tel">`, `<input type="range">`, etc.
- Native video and audio support in HTML5
- Geolocation API and its usage in HTML5

10. Accessibility and SEO in HTML

- Importance of web accessibility (WCAG guidelines)
- ARIA roles and attributes for enhancing accessibility
- Using `<alt>` attributes for images for better screen reader support
- SEO-friendly HTML practices: Title tags, Meta tags, headings structure, and proper anchor text
- Best practices for creating accessible forms

11. HTML5 Forms and Advanced Input

- Advanced input types in HTML5 (`<input type="date">`, `<input type="time">`, `<input type="url">`, etc.)
- Form submission methods (GET vs POST)
- Using `<datalist>`, `<keygen>`, and `<output>`
- Customizing input fields with CSS

- Responsive forms and handling form data efficiently

12. Final Project

- **Project Ideas**:
  - Build a personal portfolio website using HTML
  - Create a simple blog layout using semantic HTML
  - Design a responsive landing page with forms and multimedia
  - Build a product page for an e-commerce website with images and tables
  - Develop a simple contact form with validation