### **ADWEBL Midterm Exam Coverage and Review Guide**

### Frontend Development - Lecture and Laboratory

#### **Coverage Based on Our Discussions, Exercises, and Lab Activities:**

#### 1. HTML Basics

- 2.1 Heading Elements
- 2.2 Paragraph Elements
- 2.3 Void Elements (e.g., <img>, <br>, <hr>)
- 2.4 Movie Ranking Project

## 2. HTML Advanced Concepts

- 3.0 List Elements (Ordered, Unordered)
- 3.1 Nesting and Indentation Best Practices
- 3.2 Anchor Elements (Hyperlinks)
- 3.3 Image Elements
- 3.4 Birthday Invite Project

### 3. File Organization and Portfolio Basics

- 4.0 Understanding File Paths (relative and absolute)
- 4.1 Building Basic Webpages
- 4.3 HTML Portfolio Project

#### 4. CSS Basics

- 5.1 Adding CSS to HTML (inline, internal, external)
- 5.3 CSS Selectors (element, class, ID selectors)
- 5.4 Color Vocabulary Project

## 5. Design Fundamentals (Lecture Discussion)

# Color Theory

- Primary, secondary, complementary colors
- Warm vs. cool colors
- Meaning of colors in branding and web design

### Typography

- Font families (serif, sans-serif, monospace)
- Importance of readability and font pairing

### 6. CSS Styling and Layouts

- 6.0 CSS Colors (hex codes, rgb, hsl)
- 6.1 Font Properties (font-size, font-weight, line-height, text-align)
- 6.3 CSS Box Model (content, padding, border, margin)
- 6.4 Motivation Meme Project

### 7. CSS Intermediate Topics

- 7.0 CSS Cascade and Specificity
- 7.1 Combining Selectors (grouping, chaining, descendant)
- 7.2 CSS Positioning (static, relative, absolute)
- 7.3 CSS Flag Project

### 8. Responsive Web Design Concepts

- 8.0 CSS Display Properties (block, inline, inline-block)
- 8.1 CSS Float and Clear
- 8.2 Introduction to Responsiveness
- 8.3 Media Queries (basic mobile responsiveness)
- 8.4 Web Design Agency Project

### 9. Flexbox and Grid Layouts

- 9.0 Flexbox Basics (flex container, flex items)
- 9.1 Flex Direction (row, column)
- 9.4 Flexbox Pricing Table Project
- 10.0 Display Grid Basics
- 10.1 Grid Sizing (columns, rows, auto placement)
- 10.2 Grid Placement (grid lines, spanning)
- 10.3 Mondrian Project

### 10. Framework Basics (Introduction Only)

- 11.0 Bootstrap Introduction (concept of using a framework)
- 11.2 Bootstrap Components (cards, buttons, navbar basics)

### 11. JavaScript Fundamentals (Lecture and Coding Labs)

- FizzBuzz Challenge
  - Using for loops, if-else conditions
- 99 Bottles of Beer Challenge
  - Simplifying loops with ternary operators
- Ternary Operator
  - Syntax: condition ? valueIfTrue : valueIfFalse
- Variables
  - o let and const usage (modern JS declaration)
- Template Literals
  - Using backticks `Hello \${name}` for cleaner string insertion
- Basic Debugging
  - o How to use Chrome Developer Tools
  - o Console logs, inspecting elements, checking errors

#### **Reminders for Midterm:**

- Focus on HTML structure and clean coding practices
- Know how to style with CSS and use Selectors, Colors, Fonts properly
- Understand basic Responsive techniques: Flexbox, Grid, Media Queries
- Practice simple JavaScript logic (loops, conditionals, outputting to console)
- Know the importance of **Color Theory** and **Typography** in frontend design
- Be familiar with **basic Bootstrap components** (no deep customization yet)

### 15 Practice Questions (Frontend)

#### HTML

1. (Identification)

What tag is used to create a hyperlink in HTML?

2. (Fill in the blank)

Write the correct HTML tag to insert an image with the source cat.jpg and alternate text Cute Cat.

3. (Multiple Choice)

Which of the following is a **void element** (self-closing)?

A) < div > B) C) < img > D) < h1>

#### **CSS**

### 4. (Short Answer)

What is the purpose of the **Box Model** in CSS?

### 5. **(Coding)**

Write a CSS rule to change the font color of all <h2> elements to blue and center-align the text.

## 6. (True or False)

In CSS, #header targets all elements with the class name header.

#### 7. (True or False)

A class selector in CSS uses a . (dot) before the class name.

## Color Theory & Typography

## 8. (Multiple Choice)

Which color scheme is made up of colors opposite each other on the color wheel?

A) Analogous B) Complementary C) Monochromatic D) Triadic

## 9. (Short Answer)

Give one important reason why typography matters in web design.

#### Responsive Design (Flexbox, Grid, Media Query)

# 10. (Fill in the blank)

Which CSS property is used to make a container a **flex container**?

# 11. (Coding)

Write the basic syntax of a **media query** that applies styles only if the screen width is 600px or less.

## **Bootstrap (Intro Basics)**

### 12. (Multiple Choice)

In Bootstrap, which class will make a button blue?

A) btn-secondary B) btn-primary C) btn-success D) btn-danger

### **JavaScript Basics**

### 13. (Short Answer)

What is the difference between let and const in JavaScript?

## 14. (Coding)

Write a JavaScript program that prompts the user for their **first name**, **middle name**, and **surname**. Then display their **3-letter initials** (in **UPPERCASE**) and greet them:

## Example:

- Input: Cathy Molina Garcia
- Output: Hello CMG, welcome to ADWEBL Midterm Exam 2025!

## 15. (Coding)

Write a JavaScript function to check if a given year is a leap year or not, based on if-else logic:

#### Guide:

- If the year is divisible by 4,
  - o then check if it is divisible by 100.
    - If it is divisible by 100, check if divisible by 400.
      - If divisible by 400, it is a leap year.
      - If not, not a leap year.
    - If not divisible by 100, it is a leap year.
- If not divisible by 4, it is not a leap year.