



## Computer Science & Information Systems Department

### CS 341: Web Technologies Mid-Semester Exam

**Semester:** Semester I, Aug-Dec, 2024

**Date:** 28<sup>th</sup> October 2024

**Duration:** 1 hour 10 minutes

**Points:** 30

**Weight:** 15 %

First Name : \_\_\_\_\_

Last Name: \_\_\_\_\_

Student ID No.: \_\_\_\_\_

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#### **Instructor:**

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#### **INSTRUCTIONS**

1. Be sure to read the instructions and each question very carefully.
2. This is a Multiple-Choice Question type exam. There are 15 questions, and each question carries 5 points. Answer *all* the questions.
3. You are NOT allowed to use your devices like your laptop, mobile phone, and tab during the exam's answering phase (the first 60 min). However, you can use your devices to transfer the answers to Canvas during the last 10 min.
4. Submit this question booklet with your answers written therein, at the end.
5. All rules governing examinations and academic honesty at Ashesi apply.

**Q1) [2 Points]**

What will be the output of the following HTML code snippet?

```
<!DOCTYPE html>
<html>
<head>
  <title>Test Page</title>
</head>
<body>
  <p id="demo"></p>
  <script>
    document.getElementById("demo").innerHTML = 5 + "5";
  </script>
</body>
</html>
```

- A) 10                      B) 55                      C) Error                      D) 5

**Q2) [2 Points]**

Analyze the following code. Which of the input fields will NOT allow the user to select multiple files? You can choose more than one answer.

```
<form>
  <input type="file" name="upload1">
  <input type="file" name="upload2" multiple>
  <input type="file" name="upload3" accept="image/*">
  <input type="file" name="upload4" multiple accept="audio/*">
</form>
```

- A) upload1      B) upload2      C) upload3      D) upload4

**Q3) [2 Points]**

Given the following code, which of the following <meta> tags is essential for ensuring the webpage scales correctly on mobile devices?

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="description" content="Sample page">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
  <h1>Hello World</h1>
</body>
</html>
```

- A) <meta charset="UTF-8">
- B) <meta name="viewport" content="width=device-width, initial-scale=1.0">
- C) <meta name="description" content="Sample page">
- D) None of the above

**Q4) [2 Points]**

Which of the following elements are valid based on HTML5 standards?

<h3>This is a subheading</h3>  
<h5>This is a sub-subheading</h5>  
<h6>This is the smallest heading</h6>  
<h2>This is another heading</h2>

- A) All heading tags are valid.
- B) <h3>, <h5>, and <h2> are valid.
- C) Only <h2> and <h3> are valid.
- D) None of the headings are valid.

**Q5) [2 Points]**

Given the following form input field, how would you modify it to accept a date and time, and ensure the input format is validated by the browser?

<input type="text" name="appointment">

- A) Change the type to datetime.
- B) Change the type to datetime-local.
- C) Change the type to date-time.
- D) Change the type to time.

**Q6) [1 Point]**

In HTML5, which of the following attributes is used to specify that an input field must be filled out before submitting the form?

- A) required
- B) validate
- C) mandatory
- D) default

**Q7) [1 Point]**

Which HTML attribute is used to define inline styles for an element, and why should its use be minimized?

- A) style, because it makes the HTML less readable and less maintainable.
- B) class, because it limits the reuse of styles across elements.
- C) id, because it restricts the functionality to one instance.
- D) link, because it connects the element to external stylesheets.

**Q8) [1 Point]**

Which of the following is NOT a valid input type in HTML5?

- A) datetime-local
- B) range
- C) color
- D) month-year

**Q9) [1 Point]**

When embedding a video into an HTML5 page using the <video> element, which attribute ensures the video is loaded and ready to play as soon as possible?

- A) autoplay
- B) controls
- C) preload
- D) autobuffer

**Q10) [1 Point]**

What will the following code output?

```
let x = 10;  
let y = x++;  
console.log(x, y);
```

- A) 10, 10
- B) 11, 10
- C) 10, 11
- D) 11, 11

**Q11) [2 Points]**

What will the following code do?

```
document.querySelector('#myDiv').textContent = 'Hello World!';
```

- A) Change the HTML content inside the element with id="myDiv" to 'Hello World!'.
- B) Change the text inside the element with id="myDiv" to 'Hello World!'.
- C) Replace the element with id="myDiv" with a new element that has 'Hello World!'.
- D) Append 'Hello World!' to the existing content inside #myDiv.

**Q12) [2 Points]**

What will happen when you run the following code?

```
let btn = document.createElement('button');  
btn.innerHTML = 'Click Me';  
btn.addEventListener('click', function() {  
    alert('Button clicked!');  
});  
document.body.appendChild(btn);
```

- A) A new button with the text "Click Me" will be added, but it will not respond to clicks.
- B) A new button will be added, and clicking it will show an alert saying "Button clicked!".
- C) The button will be added but will not show the text "Click Me".
- D) No button will be added, and an error will be thrown.

**Q13) [2 Points]**

Write a function that hides an element with the ID content when a button with the ID hideBtn is clicked.

A)

```
document.querySelector('#hideBtn').addEventListener('click', function() {  
    document.querySelector('#content').style.display = 'none';  
});
```

B)

```
document.querySelector('#hideBtn').addEventListener('click', function() {  
    document.querySelector('#content').innerHTML = "";  
});
```

C)

```
document.querySelector('#hideBtn').addEventListener('click', function() {  
    document.querySelector('#content').style.visibility = 'hidden';  
});
```

D) Both A and C