



# University of Maryland College Park

## Department of Computer Science

### CMSC122 Fall 2021

### Exam #1-KEY

FIRSTNAME, LASTNAME (PRINT IN UPPERCASE):

STUDENT ID (e.g. 123456789):

#### Instructions

- Please print your answers and use a pencil.
- This exam is a closed-book, closed-notes exam with a duration of 50 minutes and 100 total points.
- **Do not remove the exam's staple.** Removing it will interfere with the scanning process (even if you staple the exam again).
- Write your directory id (e.g., terps1, not UID) at the bottom of pages with **DirectoryId**.
- Provide answers on the provided lines or the rectangular areas.
- Do not remove any exam pages. Even if you don't use the extra pages for scratch work, return them with the rest of the exam.
- Your code must be efficient and as short as possible.
- If you continue a problem on the extra page(s) provided, make a note on the particular problem.
- You don't need to use meaningful variable names; however, we expect good indentation.
- **You must write your name and id at this point (we will not wait for you after time is up).**
- You must stop writing once time is up.

#### Grader Use Only

#1	Part #1 (Short Answer 2pts)	28
#2	Part #2 (Short Answer 4pts)	24
#3	HTML Code	24
#4	JS Code	24
<b>Total</b>	Total	100

## Part #1 (Short Answer – 2 pts each)

1. Circle just the attribute of the following HTML element:

```
<p id = "myPar"> Exam 1 </p>
```

2. Circle just the property value in the following CSS rule:

```
h2 { color : green; }
```

3. What symbol is used for the universal selector in CSS? \*
4. Write an HTML comment that says: Exam 1. `<!--Exam 1-->`
5. Write a CSS comment that says: Exam 1. `/* Exam 1*/`
6. **http** is the protocol that defines how user agents (e.g., browser) and web server can communicate.
7. HTML attributes are placed in the start tag. True or False? **True**
8. `<br>` is an example of a self-closing tag (i.e. There is just the one tag and not a separate start and close tag).

True or False? **True**

9. There are 5 levels of heading tags in HTML. True or False? **False**

10. The goal of HTML is to describe structure only. Presentation should be left to CSS.

True or False? **True**

11. What is the difference between `<em>` and the `<strong>` tag?

**`<em>` is emphasis**

**`<strong>` for strong emphasis**

12. In class, you were encouraged to use the keyword `let` to declare a JavaScript variable. What is the other keyword that can be used for JavaScript variable declarations (answer is not the keyword `const`)

**`var`**

13. **DOM (Document Object Model)** is an interface for web programming represented as a tree with nodes

for the parts of the html document. It helps visually depicts relationships such as child elements and descendant elements.

14. **Inheritance** refers to the idea that descendant elements can have the same CSS style as the ancestor elements even without explicitly writing a rule.

## **Part #2 (Short Answer – 4 pts each)**

15. The four sections in the CSS box model are:

1) **Content** 2) **Padding**

3) **Border** 4) **Margin**

16. Write just the HTML code to make the following definition list (Indentation shown is the default provided by the browser, just write the code for the list).

```
CMSC131
  First CS Course at UMD
CMSC132
  Second CS Course at UMD
```

```
<dl>
  <dt>CMSC131</dt>
    <dd>First CS Course at UMD</dd>
  <dt>CMSC132</dt>
    <dd>Second CS Course at UMD</dd>
</dl>
```

17. Assume you have an image called terrapin.jpg in the same folder as your HTML file. Show the HTML code you would write to show the image. If the image is not available use the correct attribute so that it shows the text `Terp image`.

```

```

18. Keeping in mind CSS specificity rules put the following in order from general (#1) to specific (#4) : class, id, type, universal.

1) **universal** 2) **type**

3) **class** 4) **id**

19. Write a CSS rule such that the element with `id examInfo` will be `green`.

```
#examInfo {color: green;}
```

20. Write a CSS rule such that all `<p>` elements in the `class info` will be `blue`.

```
p.info {color: blue;}
```

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<b>Directory id:</b>
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### Part #3 – Write the HTML Code (NO CSS) 24 Pts

21. Write just the code in the <body> you need to make the following table. The value of the border is 1. The content of the table cells are lists and links. When the link is clicked it should go to www.umd.edu. Do not use <b> or <strong> for the first row, instead use the correct tag for the first row of a table.

CMSC 122	
1. HTML 2. CSS 3. JS	<a href="#">UMD</a>
	<ul style="list-style-type: none"><li>• HTML</li><li>• CSS</li><li>• JS</li></ul>

```
<table border ="1">
  <tr>
    <th colspan="2">CMSC 122</th>
  </tr>
  <tr>
    <td rowspan="2">
      <ol>
        <li>HTML</li>
        <li>CSS</li>
        <li>JS</li>
      </ol>
    </td>
    <td>
      <a href="http://www.umd.edu">UMD</a>
    </td>
  </tr>
  <tr>
    <td>
      <ul>
        <li>HTML</li>
        <li>CSS</li>
        <li>JS</li>
      </ul>
    </td>
  </tr>
</table>
```

#### **Part #4 – Write the JS Code 24 Pts**

22. Write a JS program (just what goes in the script tag) that will prompt the user for a word with the text Enter your name: . It should next prompt the user for a word with the text Enter a word: . The program will write to the webpage as a paragraph the user's name and let the user know if the word is 5 or more characters or less. For example, if the person enters the name Joe and hi. The webpage will display: Joe, hi has less than 5 characters.

If the user re-loads the page and this time they enter Mary and hello. The output will now be: Mary, hello has 5 or more characters.

```
<script>
  "use strict";

  let name = prompt("Enter your name:");

  let word = prompt("Enter a word:");

  if (word.length < 5) {
    document.writeln("<p>" + name + ", " + word + " has less than 5 characters.");
  }
  else{
    document.writeln("<p>" + name + ", " + word + " has 5 or more characters.");
  }

</script>
```

**EXTRA PAGE IN CASE YOU NEED IT (SUBMIT WITH THE EXAM)**

**LAST PAGE**