

Open book, notes, Internet.

1. Here is an HTML button:

```
<button type="submit"> Click when finished </button>
```

Change the HTML tag so that when the button is clicked, the Javascript function `buttonClick()` is executed.

2. Consider the following code:

```
timer1On = false;

function startAnimation() {
    if (timer1On) alert("the timer is running already");
    else {
        timer1 = setInterval("nextPosition();", 500);
        timer1On = true;
    }
}

function stopAnimation() {
    clearInterval(timer1);
    timer1On = false;
}
```

Rewrite the code so that the interval used by the interval timer is passed as a parameter to the `startAnimation()` function.

3. You want a timer to go off in one minute, invoking a Javascript function `ring()`. Give the code that sets the timer correctly.

4. A form lets the user choose one of 3 items (a, b, c). Give Javascript code.

```
<form>  
  <!-- enter answer here -->
```

```
</form>
```

5. Every header should use green text on a red background.
Give CSS that will make it so. (external file or header)

6. Give a regular expression that will match any text that has 'emich.edu' at the end.
E.g., matches 'me@emich.edu', does not match 'me@emich.edu123'

7. Given the following HTML document, sketch the portion of the DOM rooted at the html element.

Include only element nodes and text nodes.

```
<html><body>

  <h1>A HEADER</h1>
  <table>
    <tr><td> CELL 1 </td> <td> CELL 2 </td> </tr>
  </table>

</body></html>
```

8. Give Javascript to define a class Book.

Data members: title, author, numStars.

Methods: toString(), getAuthor(), setAuthor.

9. Java textbooks that teach Swing programming will say: computation that takes a long time must be placed in a separate thread.

What bad consequence will happen if that piece of advice is ignored?

10. True or false

The Swing Timer object requires an ActionListener.

TRUE FALSE

There can be more than one Swing Timer object in the same Java program.

TRUE FALSE

The Swing Timer is a part of Javascript.

TRUE FALSE

To set a Swing Timer object, specify the interval in seconds (e.g., to go off in 1 minute you would supply 60 as the parameter).

TRUE FALSE

Applet code executes on the client.

TRUE FALSE

In-line CSS code takes precedence over CSS in an external file.

TRUE FALSE

11. MULTIPLE CHOICE -- PICK THE ONE BEST ANSWER

Article I, Section 8, Clause 8 of the *United States Constitution*:

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

This justification for intellectual property rights for authors and inventors is:

- A. Lockean (labor)
- B. Hegelian (personality)
- C. Utilitarian (social utility)

A link to an external CSS file is given by the HTML element.

- A. `<script>`
- B. `<a>`
- C. `<css>`
- D. `<link>`

When a browser executes Javascript on a webpage, that Javascript will execute

- A. On the client
- B. On the server
- C. Somewhere in the cloud