## CIS 228 (Spring, 2012) Final, 5/17/12

Name (sign)
Name (print) email

I would prefer to fail than to receive a grade of $\qquad$ or lower for this class.

| Question | Score |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| A |  |
| B |  |
| C |  |
| D |  |
| E |  |
| TOTAL |  |

## Question 1

## True or false:

_ Unordered lists cannot contain ordered sub-lists.
__ Event attribute values can specify calls to JavaScript functions.
_ Images cannot be uses as labels for hyperlinks.
_ A web page cannot access JavaScript functions defined in a separate file.
_ The columns of a table cannot be specified by the $<$ tc $>$ element.
_ In CSS, URL's are not specified using the "href" attribute.
_ A <meta> element (if present at all) must be the child of a <head> element.
_ HTML 4.01 is the same as XHTML 1.0.
$\ldots \operatorname{rgb}(0 \%, 0 \%, 50 \%)$ is not a shade of green.
_ Table data, <td>, elements cannot contain <table> elements.
_ JavaScript does automatically convert numbers to Strings.
$\qquad$ A <form> element cannot contain a <title> element.
$\qquad$ The <th> element can only used to provide headings for the columns of a table.
$\qquad$ If specified, the <caption> element must be the first child of a <table >element.
_ The $<$ span $>$ element is not used to group block elements.
_ A $<\mathrm{p}>$ element cannot have another $<\mathrm{p}>$ element embedded within it.
Firefox will not display web pages that do not comply with W3C standards.
An $<\mathrm{li}>$ element cannot have a $<$ form $>$ element embedded within it.

## Question 2

Indicate which of the following tasks could be best accomplished using HTML, CSS, or JavaScript (JS).
$\qquad$ Allow multiple values to be selected from a pull down menu.
$\qquad$ Check that a field in a form contains only digits.
$\qquad$ Set a background image for a paragraph.
$\qquad$ Specify that the elements of a list should be numbered using capital letters.
___ Specify a label for an input element of a form.
$\qquad$ Create a hyperlink to another file.
$\qquad$ Cause an element to float to the left edge of a browser window.
$\qquad$ Solicit the users name when a web page is first loaded.
$\qquad$ Cause heading elements to be centered.
$\qquad$ Make row or column headings in a table.
$\qquad$ Add an element to an ordered list in responses to user input.
$\qquad$ Specify the font to be used for the text inside a $<\mathrm{q}>$ element.
$\qquad$ Group consecutive block elements so that they can be styled as a unit.
$\qquad$ Specify that the borders around consecutive cells in a table be fused together.
$\qquad$ Specify a title for a button on a form.
$\qquad$ Calculate the total field of a form.
$\qquad$ Specify the width of a blockquote element.

## Question 3

Circle each of the following that is the name of an attribute in HTML:
class
src
table
doctype
input
id
onclick
meta
href
script
caption
rows

## Question 4

Indicate which of the following identifiers is the name of
$\boldsymbol{C}$ - an HTML character entity,
$\boldsymbol{E}$ - an HTML element,
$\boldsymbol{A}$ - an HTML attribute,
$\boldsymbol{P}$ - a CSS property,
$\boldsymbol{K}$ - a JavaScript keyword, or
$\boldsymbol{F}$ - a JavaScript function (or method). (Hint: some may get more than one letter.)
_ form
__ margin
__ img
__ function
_ alert
_ random
_ else
__ \&
_ parseInt
_ src
_ position
_ option
getElementById
while
$\qquad$ background-image

## Question 5

Illustrate each of the following with an example. (NO DEFINITION REQUIRED)
A tag

A character entity

A span element

A class attribute

A hex color code

A JavaScript object

A style element

An id attribute

A JavaScript event

A select element

A JavaScript function call

A link element

## Question 6

Give one example of an html element (if any) that could be a parent of the given element.

<html>
\(\qquad\)
\[
<\mathrm{p}>
\]
\(\qquad\) <title>
\(\qquad\) <input>
\(\qquad\) <caption>
\(<\) li>
<h2>
<th>
\(\qquad\) <option>
<ol>

\section*{Question 7}

The following diagram indicated the layout of a collection of files and directories (folders).

A) In index.html, create a hyperlink to cis228.html with "CIS 228" as its label.
B) In index.html, attach index.css as a stylesheet.
C) In index.css, write a rule that causes shoe.gif to be used as bullets for unordered lists.
D) In cmp338.html, create a hyperlink to sorting.html with "Sorting" as its label.
E) In sorting.html, embed the merge.jpg image.
F) In sorting.html, create a hyperlink to cmp338.html using the image quick.png as its label.

\section*{Question 8}

Briefly, describe the HTML elements that would be displayed in red, if the blank in the following CSS rule were replaced by the indicated selector:
\(\ldots\) \{ color : red ; \}
a) blockquote
b) \(\operatorname{div} p\)
c) li.sports
d) \#biography
e) blockquote li q
f) a\#fiction:hover
g) li. \(\operatorname{dog} \mathrm{p}\)
h) span\#nonfiction \(>\) em
i) \(h 2+p\)
j) ol\#children p.illustrated img

\section*{Question 9}

Write a complete HTML 5 page that displays as follows.

\section*{Summer reading}
1) Mailer: "The Naked and the Dead"
2) Shakespeare:
- "King Lear"
- "Hamlet"
3) Whitman: "The Leaves of Grass"

\section*{Question A}

Write the XHTML elements to create approximately the following table (don't worry about styling it).
\begin{tabular}{|l|r|lr|}
\multicolumn{1}{c}{ Score } \\
\hline & \multicolumn{1}{c}{ red } & \multicolumn{1}{|c|}{ black } \\
\hline odd & 1 & & -1 \\
\hline & & new & 5 \\
even & -1 & old & -2 \\
\hline
\end{tabular}

\section*{Question B}

Create an order form for a furniture store. The form will be processed by the "/applications/order.php" application at the "www.furniture.com" domain. Be sure to include a button that will cause the form to be submitted. Remember that the browser will transform a completed form into a sequence of name-value pairs and submit them to the application. The names for this form are listed in boldface and described below. You don't need to specify a complete web-page, just the form. Don't worry about styling the form. But, do make sure that the user has enough information to fill it out.
item: use a menu to allow selection of "table", "chair", "desk", or "bookcase".
address: space for up to 4 lines of text 60 columns wide.
card: either "MasterCard" or "Visa".
number: room for one line of text.

\section*{Question C}

Below is a poem.html document. Do not change the html. Create a complete style sheet (poem.css file) on the next page to achieve the following:
a) Set the default font size to medium.
b) Set the default font to be Georgia.
c) Set the background color for the page to be gray.
d) Float the "poem" on the left with a width of 320 picture elements.
e) Surround the "poem" with a solid blue border 1 picture element wide.
f) Pad the "poem" 6 picture elements on the top and bottom and 3 on the sides.
g) Give the "poem" a right margin of 20 picture elements.
h) Set the background color of the "poem" to be yellow.
i) Set the font color of the poem to be \(\# \mathbf{3 3 0 0 0 0}\).
j) Use the Times New Roman font for the "poem" text.
k) Have "Hegel" in the "subtitle" element display in the normal font style.
l) Align the text of the "author" element on the right.
```
<html>
    <head>
            <title>Roaming in thought</title>
            <link type="text/css" rel="stylesleet" href="poem.css">
    </head>
    <body>
        <h2>Dialectics</h2>
            <blockquote id="poem">
            <p class="title">ROAMING IN THOUGHT</p>
            <p class="subtitle">(<em>After reading <em>Hegel</em>.</em>)</p>
            <p>Roaming in thought over the Universe, I saw the little the is <br>
            &nbsp;&nbsp; Good steadily hastening towards immortality, <br>
            And the vast all that is call'd Evil I saw hastening to merge itself <br>
                &nbsp;&nbsp; and become lost and dead.</p>
            <p id=author>Walt Whitman</p>
            </blockquote>
        </body>
</html>
```

\section*{Question D}

Briefly describe what the following JavaScript code fragments do
```
(x+5) + " shoes";
(0 <= i && i < n)
alert("No more monkeys!");
window.onload = init;
var c = list.getAttribute("class");
var list = document.getElementById("list");
var li = document.createElement("li");
li.innerHTML = "Lehman College";
list.appendChild(li);
```
var movie = new Movie("Mars Attacks", "sci fi", ["7pm"]);
localStorage.setItem("movie", JSON.stringify(movie));
function random(n) \{ return Math.floor(n*Math.random()); \}
function makeRow(r) \{
    var row = document.createElement("tr");
    row.setAttribute("id", "row_"+r);
    return row;
\}

\section*{Question E}

Complete the following web page to bring up a series of popup windows that ask the user to input an integer. When an empty value (or, any value that does not start with an integer) is entered, modify the page to display the sum of the entered integers in the "output" element.
```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Summation</title>
    <meta charset="utf-8" />
    <script>
```
```
    </script>
</head>
<body>
    <p>
            Click <button onclick="sum();">here</button> to get prompted to
            enter a sequence numbers (ending with ""). Their sum will appear here:
            <span id="output"></span>
    </p>
</body>
</html>
```
```

