

Exam #1 – 40 Minutes - Practice

Last name: _____ First name: _____

-
- Below are **five** problems/questions to be solved/answered on this closed-notes no-reference no-calculator exam. Only a pen, pencil, and eraser are permitted. Rest of the items (such as notes, books, and blank papers) must be put away out of reach.
 - Electronic devices must be turned off. Smart phones must be silenced and put away out of reach.
 - Show all your work for solving/answering the problems/questions in the space provided. The backside of a page will not be graded.
 - Do not provide multiple answers. If more than one answer is provided, the grader will only select one answer at random.
 - All problems/questions have equal weight unless otherwise specified.
 - Take a break (if you need to) **before** accepting the exam. **You must turn-in the exam before leaving the classroom.**
-

1) a) Briefly explain why JS is referred to as a **dynamic** language.

b) Define a dictionary in JS having the following three key-value pairs: name:joe, age:21, major:astronomy.

c) Give one example for each of the two notations, *dot* and *bracket*, used for referencing values.

d) Ben made a change in JS code but its effect is not shown on the corresponding webpage. No error is being displayed on the webpage either. What can Ben do to see a possible error in his code?

2) a) Using getElementById() JS function, show statements to change the size of "head1" DIV HTML element to 200px-by-200px.

b) Using getElementById() JS function, write a statement to show the value of the text of "head1" HTML element in an alert box.

c) Show a statement to make "head1" HTML element clickable to call function **fnc1** when clicked.

d) Show the respective CSS code of "core" HTML DIV of 150px-by-150px size with its center located at the center of its parent DIV of 400px-by-400px.

3) Consider "hello" HTML element which is clickable and calls function **fnc3** when clicked on. Write function **fnc3** which changes the color of the text of HTML element "world" to green if it was red, and to red if it was green (or some other color).

4) a) Consider the following HTML code of a form:

```
<form id="form1" action="_____ " method="post" onSubmit="_____ ">
  <p>
    <input type="text" id="major" name=""> </br>
    <input type="submit" value="submit">
  </p>
</form>
```

Complete the above form so that when "submit" button is clicked, **fnc4** function is called and if **fnc4** returns true <https://www.utsa.edu> is called.

b) Write the code for **fnc4** function such that the function returns *true* if the input field text equals "engineering" or "biomedicine," otherwise, the function returns *false*.

fnc4 code:

5) Consider the following combination of HTML/CSS/JS code:

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="e5.css" />
    <script src="script5.js"></script>
  </head>
  <body>
    <div id="mySpace"></div>
  </body>
</html>
```

```
/*CSS e5.css file*/
.mySpace {
  background-color: green;
  color: black;
  width: 600px;
  height: 600px;
  margin-left: 20px;
}
```

```
//JavaScript script5.js file
document.getElementById("mySpace").innerHTML="This is my space to launch ideas from.";
```

a) Mary says that executing the HTML code in a browser will cause an error in the JS code. Assuming that she is correct, what error will be caused?

b) Ben claims that CSS file does not correctly specify the style of DIV "mySpace." Assuming he is correct, what is the problem with the CSS code?

c) Show the *complete* updated HTML code within <body> tag to specify "myIdeas" DIV of size 40px-by-60px anywhere within "mySpace" DIV. Show the corresponding CSS code in Part #d.

<body>

</body>

d) CSS code for Part #c: