NAME: _____ LOGIN:_____

Quiz 2 will cover the following topics:

- JavaScript canvas, audio, and video basics
- JavaScript objects (including associative arrays and `navigator.geolocation`)
- JSON and JSON parsing
- First-class functions
- Exception handling
- AJAX and XMLHttpRequest
- `var` scoping
- Event handling
- Labs 5, 6, and 7
- Assignment 2 and 3
- Cookies and local storage

Google Maps API will not be tested.

Practice Questions

1A. Consider the following script:

```
try {
    str = '{"person":{"name":"Carmen
Sandiego","loc":{"latitude":51.894444,"longitude":51.894444,"note":"Sealand"}}'
;
    obj = JSON.parse(str);
    // Your answer to question 1A here...
}
catch (exception) {
    console.log("Cannot find the last whereabouts of Carmen Sandiego!");
}
finally {
    console.log("Where's Waldo?");
}
```

Assuming that the JSON string is correct and that it can be parsed correctly, give the two ways that you can print the following message to the JavaScript console:

```
Carmen Sandiego was last seen in Sealand.
```

1B. Assuming that your answer to 1A is correct and assuming that the above script is written exactly as it is, explain the output.

2. Describe why just checking for a ready state of 4 in Ajax may not be sufficient.

3. There are five text files in
a `public_html` directory: `story1.txt`, `story2.txt`, `story3.txt`, `story4.txt`,
and `story5.txt`. Write a page using HTML and JavaScript that initially contains five buttons
with labels `Story 1` to `Story 5`. On clicking a button, the corresponding story is displayed
but with all the buttons removed from the page, and no page refresh. Assume there is a
JavaScript function `createRequest()` to create a new `XMLHttpRequest` object. Example:
clicking on the button `Story 2` will display the text in `story2.txt` on the same page.

Answers

1A.

```
console.log(obj["person"]["name"] + " was last seen in " +
obj["person"]["loc"]["note"]);
console.log(obj.person.name + " was last seen in " + obj.person.loc.note);
```

1B. Error .There is a missing "}" in JSON.

2. HTTP response status code could be 500.

3.

```
<!DOCTYPE html>
<html>

<head>
<title>Quiz 2 Question 4</title>
<script type="text/javascript">
      var request;

      // YOU DO NOT NEED TO WRITE THE ENTIRE createRequest() FUNCTION; ASSUME
IT IS PROVIDED TO YOU!
      function createRequest()
      {
            try {
                  request = new XMLHttpRequest();
            }
            catch (ms1) { // yes, exception handling is supported in
JavaScript
                  try {
                        request = new ActiveXObject("Msxml2.XMLHTTP");
                  }
                  catch (ms2) {
                        try {
                              request = new
ActiveXObject("Microsoft.XMLHTTP");
                        }
                        catch (ex) {
                              request = null;
                        }
                  }
            }
            if (request == null) {
```

```
                        alert("Ajax is not supported on your web browser.  What a
shame!");
                }
        }

        function getStory(story)
        {
                var story;

                createRequest();
                switch(story) {
                        case 1:
                                story = "story1.txt";
                                break;
                        case 2:
                                story = "story2.txt";
                                break;
                        case 3:
                                story = "story3.txt";
                                break;
                        case 4:
                                story = "story4.txt";
                                break;
                        case 5:
                                story = "story5.txt";
                                break;
                }
                request.open("get", story, true);
                request.onreadystatechange = updatePage;
                request.send(null);
        }

        function updatePage()
        {
                e = document.getElementById("content");
                if (request.readyState == 4 && request.status == 200) {
                        e.innerHTML = request.responseText;
                }
                else {
                        e.innerHTML = "<h1>Something went terribly wrong!</h1>";
                }
        }
</script>

</head>

<body>
<div id="content">
<p><input type="button" value="Story 1" onclick="getStory(1);" /></p>
<p><input type="button" value="Story 2" onclick="getStory(2);" /></p>
<p><input type="button" value="Story 3" onclick="getStory(3);" /></p>
<p><input type="button" value="Story 4" onclick="getStory(4);" /></p>
<p><input type="button" value="Story 5" onclick="getStory(5);" /></p>
</div>
```

```html
</body>

</html>
```