SI110 Introduction to Cyber Security AY12S
Technical Foundations

Name: _____

Alpha _____

Hand in a stapled, printed copy with your answers.

Homework: /SI110/The Cyber Battlefield/Web-HTML Server-Side Scripting

1. A webpage on www.fropjop.com has a form that allows user input to enter data. Entering data results in a script being executed that depends on this data. The script loops forever (infinite loop) if the user provides bad input. Who gets harmed by the bad input: the user who entered the data, or the webserver owner of the www.fropjop.com, if the script is ...

a. ... "client-side" ? **Circle** one: user webserver owner

b. ... "server-side" ? **Circle** one: user webserver owner

2. Fill in the missing pieces of the HTML below, based only on the following (the url isn't real): You go to the page, enter **mango** in the first box, enter **spinach** in the second box, **steak** in the third box, then press the "Look Up Meal" button, which results in the following URL being visited:

http://rona.cs.usna.edu/recipeFinder.jsx?f=mango&m=steak&v=spinach

```
<html>
  <head></head>
  <body>
    <form name="lookup" onsubmit="return false"
          action="_____">
      Fruit: <input type="text" name="_____">
      Meat:  <input type="text" name="_____">
      Vegetable:  <input type="text" name="_____">
     <input type="button" onclick="submit()" value="Look Up Recipe">
    </form>
  </body>
</html>
```

3. Go to the URL: http://rona.cs.usna.edu/~si110/lec/l15/stfin.html , enter some numbers, and click the "process" button. Normally, you get a nice message that your input has been processed. It so happens that the server script that the form submits to will crash and cause a server error if it receives -999 for both input values. For that reason, stfin.html does some client-side input validation to ensure that it never submits -999 for both values. Find a way to submit -999 to this server side script none the less!

a. What is displayed in your browser when this happens.

b. Describe exactly what you did to send this bad input to the server despite stfin.html's input validation.

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4. Consider this HTML file:

```
<html>
  <head></head>
  <body>
    <form name="secret" onsubmit="return false"
      action="http://rona.cs.usna.edu/cgi/messenger.jsx" method="get">
      Enter message here: <input type="password" name="m" >
      <input type="button"  value="Send" onclick="submit()">
    </form>
  </body>
</html>
```

a. You enter the secret message: "the Goat will meet you at noon" and press the "send" button. What URL gets visited as a result?

b. Why is it that submitting sensitive information to a website using forms and the "get" method like this puts users' information in danger?