

**Computer Science 571 Exam #1**  
**Prof. Papa**  
**Thursday, February 23, 2017, 6:00pm – 7:20pm**

**Name:**

**Student Id Number:**

1. This is a closed book exam.
2. Please answer all questions.
3. Place all answers on the exam and return the entire exam

**HTTP QUESTIONS [20 PTS]**

Below is part of an exchange of messages between the browser and [www.google.com](http://www.google.com), obtained by running Live HTTP Headers. Answer the questions that follow. Each question is worth 2 points. NOTICE: NO PARTIAL CREDIT on any of the questions.

[1] <https://www.google.com/>

**GET / HTTP/1.1**

Host: [www.google.com](http://www.google.com)

User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:26.0) Gecko/20100101 Firefox/26.0

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,\*/\*;q=0.8

Accept-Language: en-US,en;q=0.5

Accept-Encoding: gzip, deflate

Cookie:

PREF=ID=6071bfff31af7b094:U=5b697a0afdbaf161:LD=en:TM=1364436987:LM=1391892814:GM=1:SG=

1:S=12CgY0xgmlOBnDi\_;

NID=67=PRYGZwG3OrF\_o6Whn6lBehspMzOutVAvVOJKq0Ziks5X5VtP4Uc2I9PJ-

QtENjxADGTYHWHpyivxKLU1blICu2iSLJ-31-NJc5QpFRvc-A7l3Da6137tUs3-

p4RTG3Yht4kzrkqxVKFSWJBDCrod97U5FqM3DC\_MUU5RySdIYwsIm5vzB5kbrvJ01Bnw9W-

B7nPKrTToc2\_C7SK08N3PjtSI-QFH8Y-FieJ6SFUkUge4;

SID=DQAAAMUAAAB1XWv1F7NFO8orDc0Q0bul4Lp8OhozF1djzSBVuLgYHgt1IhMZrSPaDzA  
DJ8caQMD0\_YWSh

eGmVdQkzBAYlRDcVZHT8QDtrMiIOiSktkZ\_FL60a47C\_Jk5YfOF6KBhBZoSKXOSibfEdPji  
CbZStTQEtLVdjar

s9PfD6o79ABT0AGHWkTAMWyPf9DcYyWCs4nClGFbBXUgdU\_h0OxDrJeMEuxlnL51fRK90je  
Q3GQS8on9Mm4Tby

qsxGgJgdwur4DPHrarks8sonf16DRnrcV-; HSID=AGA2i2PO9edxpHm2N;

SSID=AdpAV2WHoO09IIXwB;

APISID=D-Yuaw6HFJxkMeac/Alotmp7Xh0t8tyq8D;

SAPISID=LKdAgPQoxwUrndVl/Aljt9hu7WxrSIR7Ve

Connection: keep-alive

**HTTP/1.1 200 OK**

Alternate-Protocol: 443:quic  
Cache-Control: private, max-age=0  
Content-Encoding: gzip  
Content-Type: text/html; charset=UTF-8  
Date: Sat, 08 Feb 2014 20:55:28 GMT  
Expires: -1  
Server: gws  
Set-Cookie:  
PREF=ID=6071bfff31af7b094:U=5b697a0afdbaf161:FF=0:LD=en:TM=1364436987:LM  
=1391892928:GM=  
1:SG=1:S=Hzjj9NnFuvy09qII; expires=Mon, 08-Feb-2016 20:55:28 GMT;  
path=/  
domain=.google.com  
X-Frame-Options: SAMEORIGIN

-----  
**[2] https://www.google.com/gen\_204?**

**GET**

**/gen\_204?v=3&s=webhp&action=&e=31215,4000116,4007661,4007830,4008067,4008133,4008142,4009016,4009033,4009352,4009565,4009641,4010806,4010858,4010899,4011109,4011228,4011258,4011550,4011552,4011556,4011558,4011559,4011679,4011863,4011959,4011996,4012001,4012316,4012318,4012320,4012512,4012538,4012869,4012896,4012897,4013099,4013100,4013338,4013374,4013414,4013416,4013436,4013499,4013591,4013609,4013723,4013823,4013842,4013868,4013881,4013918,4013979,4014085,4014091,4014092,4014115,4014273,4014431,4014513,4014515,4014518,4014565,4014572,4014573,4014597,4014632,4014636,4014649,4014685,4014718,4014750,4014794,4014822,4014825,4014865,4014989,4015027,4015133,4015199,4015222,8300007,8500073,8500153,8500156,10200002,10200012,10200029,10200030,10200040,10200066&ei=wJn2UqH3H4PyoAS0yoH4Cw&imc=3&imn=3&imp=0&atyp=csi&adh=&xjs=init.30.39.sb.18.p.2.foot.2.cr.1.r.1&rt=xjsls.18,prt.18,xjses.86,xjsee.129,xjs.133,ol.209,iml.18,wsrt.349,cst.0,dnst.0,rqst.232,rspt.5 HTTP/1.1**  
Host: www.google.com  
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:26.0) Gecko/20100101 Firefox/26.0  
Accept: image/png,image/\*;q=0.8,\*/\*;q=0.5  
Accept-Language: en-US,en;q=0.5

Accept-Encoding: gzip, deflate  
Referer: https://www.google.com/  
Cookie:  
PREF=ID=6071bfff31af7b094:U=5b697a0afdbaf161:FF=0:LD=en:TM=1364436987:LM=1391892928:GM=  
1:SG=1:S=Hzjj9NnFuvy09qII;  
NID=67=PRYGZwG3OrF\_o6Whn6lBehspMzOutVAvVOJKq0Ziks5X5VtP4Uc2I9PJ-QtENjxADGTYHWHpyivxKLU1blICu2iSLJ-31-NJc5QpFRvc-A7l3Da6137tUs3-p4RTG3Yht4kzrkqxVKFSWJBDcrod97U5FqM3DC\_MUU5RySdIYwsIm5vzB5kbrvJ01Bnw9W-B7nPKrTToc2\_C7SK08N3PjtSI-QFH8Y-FieJ6SFUkUge4;  
SID=DQAAAMUAAAB1XWv1F7NFO8orDc0Q0bul4Lp8OhozF1djzSBVuLgYHgt1IhMZrSPaDzADJ8caOQMD0\_YWSh  
eGmVdQkzBAYlRDcVZHT8QDtrMiIOiSktkZ\_FL60a47C\_Jk5YfOF6KBhBZoSKXOSibfEdPjiCbZStTQEtLVdjar  
s9Pfd6o79ABT0AGHWkTAMWypf9DcYyWCs4nC1GFbBXUgdU\_h0OxDrJeMEuxlnL51fRK90jeQ3GQS8on9Mm4Tby  
qsxGgJgdwur4DPHrarkS8sonf16DRnrcV-; HSID=AGA2i2PO9edxpHm2N;  
SSID=AdpAV2WHoO09IIXwB;  
APISID=D-Yuaw6HFJxkMeac/Alotmp7Xh0t8tyq8D;  
SAPISID=LKdAgPQoxwUrndVl/Aljt9hu7WxrSir7Ve  
Connection: keep-alive

#### **HTTP/1.1 204 No Content**

Alternate-Protocol: 443:quic  
Content-Length: 0  
Content-Type: text/html; charset=UTF-8  
Date: Sat, 08 Feb 2014 20:55:28 GMT  
Server: gws  
Set-Cookie:  
PREF=ID=6071bfff31af7b094:U=5b697a0afdbaf161:FF=0:LD=en:TM=1364436987:LM=1391892928:GM=  
1:SG=1:S=Hzjj9NnFuvy09qII; expires=Mon, 08-Feb-2016 20:55:28 GMT;  
path=/  
domain=.google.com  
X-Frame-Options: SAMEORIGIN

-----  
**[3] https://plus.google.com/u/0/\_/n/gcosuc**

#### **POST /u/0/\_/n/gcosuc HTTP/1.1**

Host: plus.google.com  
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:26.0) Gecko/20100101 Firefox/26.0  
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,\*/\*;q=0.8  
Accept-Language: en-US,en;q=0.5  
Accept-Encoding: gzip, deflate  
Content-Type: application/x-www-form-urlencoded; charset=utf-8

Referer: https://www.google.com/  
Content-Length: 109  
Origin: https://www.google.com  
Cookie:  
PREF=ID=6071bfff31af7b094:U=5b697a0afdbaf161:FF=0:LD=en:TM=1364436987:LM=1391892928:GM=  
1:SG=1:S=Hzjj9NnFuvy09qII;  
NID=67=PRYGZwG3OrF\_o6Whn6lBehspMzOutVAvVOJKq0Ziks5X5VtP4Uc2I9PJ-QtENjxADGTYHWHpyivxKLU1blICu2iSLJ-31-NJc5QpFRvc-A7l3Da6137tUs3-p4RTG3Yht4kzrkqxVKFSWJBDCrod97U5FqM3DC\_MU5RySdIYwsIm5vzB5kbrvJ01Bnw9W-B7nPKrTToc2\_C7SK08N3PjtSI-QFH8Y-FieJ6SFUkUge4;  
SID=DQAAAMUAAAB1XWv1F7NFO8orDc0Q0bul4Lp8OhozF1djzSBVuLgYHgltIhMZrSPaDzADJ8caOQMD0\_YWSh  
eGmVdQkzBAYlRdcVZHT8QDtrMiIOiSktkZ\_FL60a47C\_Jk5YfOF6KBhBZoSKXOSibfEdPjiCbZStTQEtLVdjar  
s9PfD6o79ABT0AGHWkTAMWyPf9DcYyWCs4nClGFbBXUgdU\_h0OxDrJeMEuxlnL51fRK90jeQ3GQS8on9Mm4Tby  
qsxGgJgdwur4DPHrarkS8sonf16DRnrcV-; HSID=AGA2i2PO9edxpHm2N;  
SSID=AdpAV2WHoO09IIXwB;  
APISID=D-Yuaw6HFJxkMeac/Alotmp7Xh0t8tyq8D;  
SAPISID=LKdAgPQoxwUrndVl/AljT9hu7WxrS1r7Ve;  
OTZ=2159788\_88\_88\_104280\_84\_446940  
Connection: keep-alive  
Pragma: no-cache  
Cache-Control: no-cache  
ntok=APfa0bqYOnQRBOfWlHl6L6lyG1MfVeUEl3G2Un\_p8sxUzUU4gxcPmU7g0vP7LTmJtBAIcVYoCNKJG1l\_  
x7QxETGf3-zi\_t1Cw%3D%3D

#### HTTP/1.1 200 OK

access-control-allow-credentials: true  
access-control-allow-origin: https://www.google.com  
Alternate-Protocol: 443:quic  
Cache-Control: no-cache, no-store, max-age=0, must-revalidate  
Content-Disposition: attachment; filename="json.txt"; filename\*=UTF-8''json.txt  
Content-Encoding: gzip  
Content-Type: application/json; charset=utf-8  
Date: Sat, 08 Feb 2014 20:55:29 GMT  
Expires: Fri, 01 Jan 1990 00:00:00 GMT  
Pragma: no-cache  
Server: GSE  
X-Frame-Options: SAMEORIGIN

[4]

[https://plus.google.com/u/0/\\_/notifications/frame?sourceid=1&hl=en&orig](https://plus.google.com/u/0/_/notifications/frame?sourceid=1&hl=en&orig)

in=https%3A%2F%  
2Fwww.google.com&jsh=m%3B%2F\_%2Fscs%2Fabc-  
static%2F\_%2Fjs%2Fk%3Dgapi.gapi.en.BjPelxWx9Rw.O%2Fm%3D\_\_features\_\_%2Fr  
t%3Dj%2Fd%3D1%2  
Frs%3DAItRSTMdKBWySIqw0iL\_wtXL-  
PuVX\_sSCQ#pid=1&rpctoken=undefined&\_methods=onError%2ConInfo%2ChideNoti  
ficationWidget%  
2CpostSharedMessage%2Ccreauth%2CsetNotificationWidgetHeight%2CsetNotific  
ationWidgetSize  
%2CswitchTo%2CnavigateTo%2CsetNotificationText%2CsetNotificationAnimati  
on%2CgetNotific  
ationText%2C\_ready%2C\_close%2C\_open%2C\_resizeMe%2C\_renderstart&id=I1\_13  
91892938641&par  
ent=https%3A%2F%2Fwww.google.com&pfname=

#### GET

/u/0/\_/notifications/frame?sourceid=1&hl=en&origin=https%3A%2F%2Fwww.go  
ogle.com&jsh=m%  
3B%2F\_%2Fscs%2Fabc-  
static%2F\_%2Fjs%2Fk%3Dgapi.gapi.en.BjPelxWx9Rw.O%2Fm%3D\_\_features\_\_%2Fr  
t%3Dj%2Fd%3D1%2  
Frs%3DAItRSTMdKBWySIqw0iL\_wtXL-PuVX\_sSCQ HTTP/1.1  
Host: plus.google.com  
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:26.0) Gecko/20100101  
Firefox/26.0  
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,\*/\*;q=0.8  
Accept-Language: en-US,en;q=0.5  
Accept-Encoding: gzip, deflate  
Referer: https://www.google.com/  
Cookie:  
PREF=ID=6071bffa31af7b094:U=5b697a0afdbaf161:FF=0:LD=en:TM=1364436987:LM  
=1391892928:GM=  
1:SG=1:S=Hzjj9NnFuvy09qII;  
NID=67=PRYGZwG3OrF\_o6Whn6lBehspMzOutVAvVOJKq0Ziks5X5VtP4Uc2I9PJ-  
QtENjxADGTYHWHpyivxKLU1blICu2iSLJ-31-NJc5QpFRvc-A7l3Da6137tUs3-  
p4RTG3Yht4kzrkqxVKFSWJBdcrod97U5FqM3DC\_MUU5RySdIYwsIm5vzB5kbrvJ01Bnw9W-  
B7nPKrTToc2\_C7SK08N3PjtSI-QFH8Y-FieJ6SFUkUge4;  
SID=DQAAAMUAAAB1XWv1F7NFO8orDc0Q0bul4Lp8OhozF1djzSBVuLgYHgt1IhMZrSPaDzA  
DJ8caOQMD0\_YWSh  
eGmVdQkzBAYlRDCVZHT8QDtrMiIOiSktkZ\_FL60a47C\_Jk5YfOF6KBhBZoSKXOSibfEdPji  
CbZStTQEtLVdjar  
s9PfD6o79ABT0AGHWkTAMWypf9DcYyWCs4nClGFbBXUgdU\_h0OxDrJeMEuxlnL51fRK90je  
Q3GQS8on9Mm4Tby  
qsxGgJgdwur4DPHrarkS8sonf16DRnrcV-; HSID=AGA2i2PO9edxpHm2N;  
SSID=AdpAV2WHoO09IIXwB;  
APISID=D-Yuaw6HFJxkMeac/Alotmp7Xh0t8tyq8D;

SAPISID=LKdAgPQoxwUrndVl/AljT9hu7WxrS1r7Ve;  
OTZ=2159788\_88\_88\_104280\_84\_446940  
Connection: keep-alive

**HTTP/1.1 200 OK**

Alternate-Protocol: 443:quic  
Cache-Control: private, max-age=0  
Content-Encoding: gzip  
Content-Type: text/html; charset=utf-8  
Date: Sat, 08 Feb 2014 20:55:29 GMT  
Expires: Sat, 08 Feb 2014 20:55:29 GMT  
Server: GSE  
x-content-type-options: nosniff

---

**[5] http://127.0.0.1:49203/test.txt?\_=1391892942342**

**GET /test.txt?\_=1391892942342 HTTP/1.1**

Host: 127.0.0.1:49203  
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:26.0) Gecko/20100101  
Firefox/26.0  
Accept: text/plain, \*/\*  
Accept-Language: en-US,en;q=0.5  
Accept-Encoding: gzip, deflate  
X-Requested-With: XMLHttpRequest  
Connection: keep-alive

**HTTP/1.1 200 OK**

Content-Type: text/plain  
Date: Sat, 08 Feb 2014 20:55:42 GMT  
Last-Modified: Tue, 02 Oct 2012 14:08:14 GMT

---

**Q1. What browser, name and version, participated in the exchange of HTTP data?**

**Answer: Answer: Firefox, version 26**

**Q2. List the names of all web servers involved in these transactions?**

**Answer: gws, GSE**

**Q3. How many transactions between client and server occur?**

**Answer: 5**

**Q4. What is the name of the web server that returns the Google home page HTML?**

**gws**

**Q5. How many bytes of data are transmitted in the POST?**

**109 bytes**

**Q6. List any transactions that are “compressed”.**

**#1, #3, #4**

**Q7. How many redirects are executed in the above transactions?**

**none**

**Q8. List three (3) headers used to improve browser cache performance?**

**Expires, Cache-Control, Pragma**

**Q9. What types of compression are supported by the Firefox browser used in these transactions?**

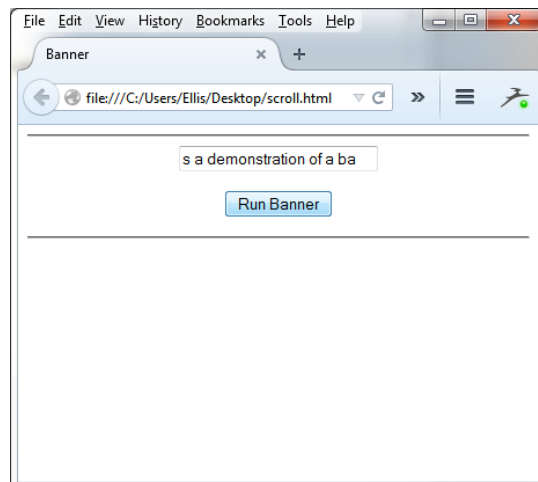
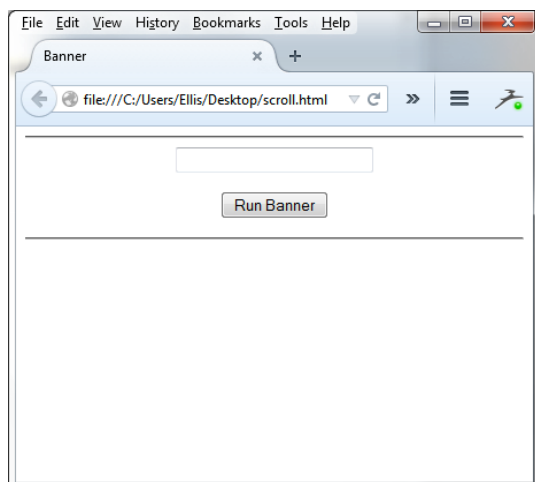
**gzip**

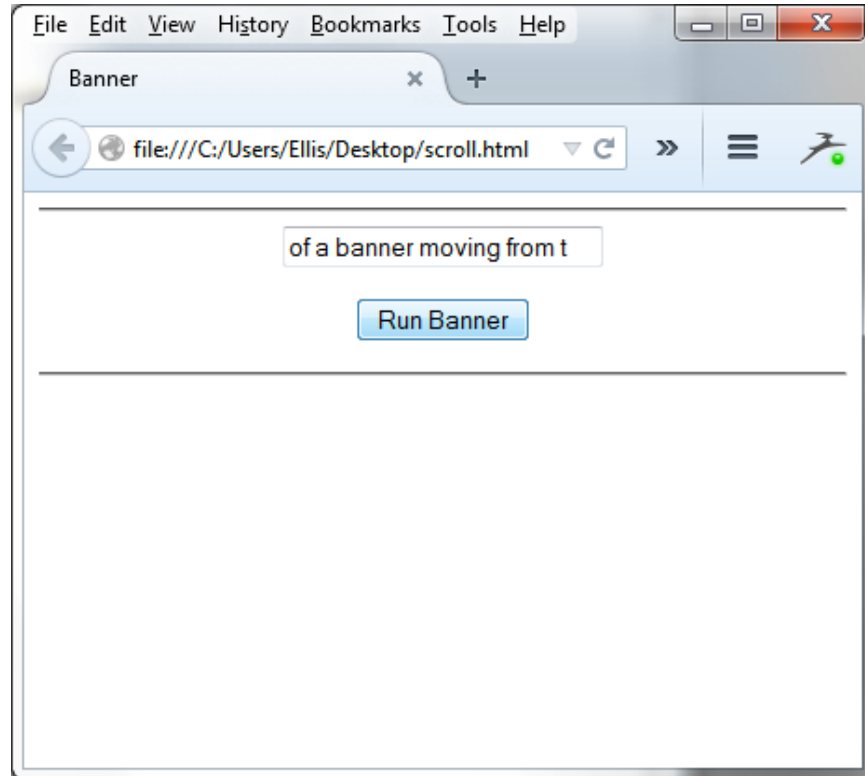
**Q10. What type of content is transferred in transaction 2?**

**None. No content is transferred in transaction 2.**

### **JAVASCRIPT QUESTIONS [20 pts]**

Below are three screenshots, taken one after another, of a web page followed by the JavaScript code that implements the page. Some of the code is missing. Fill in the missing code. Each answer is worth 2 points.





```
<HTML>
<HEAD><TITLE> Banner</TITLE>

<SCRIPT LANGUAGE= "javascript">
var sent = "This is a demonstration of a banner moving from the left to
right.";
var slen = sent.length;
var siz = 25;
var a = -3, b = 0;
var subsent = "x";

function makeSub(a,b) {
subsent = sent.substring(a,b) ;
return subsent;
}

function newMake() {
a = a + 3;
b = a + siz;
makeSub(a,b);
return subsent;
}

function doIt() {
for (var i = 1; i <= slen ; i++) {
1.
```



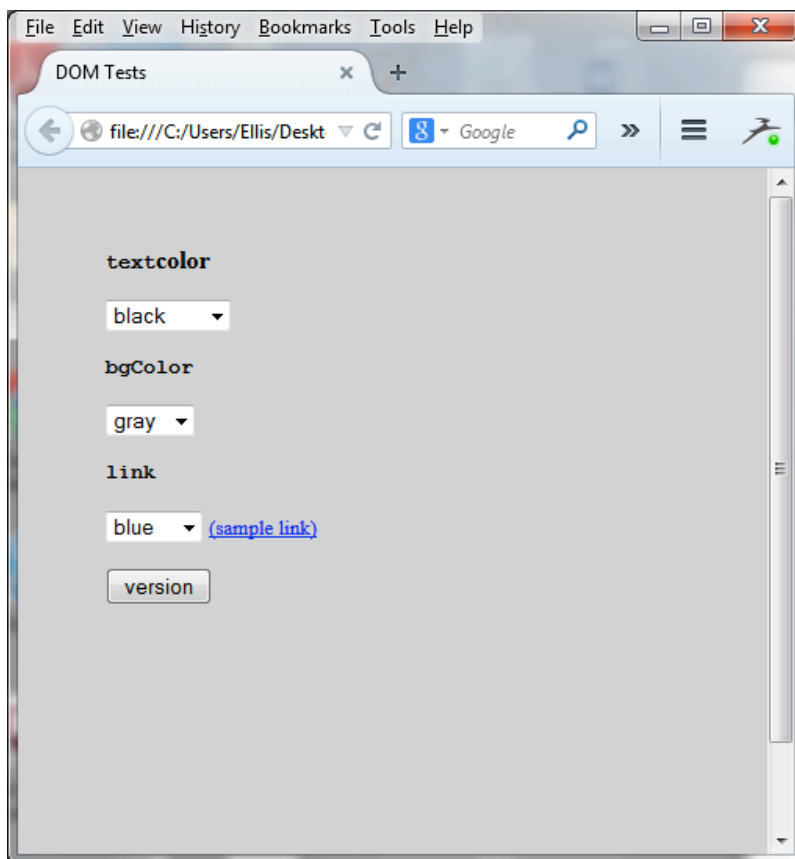
```

setTimeout("document.z.textdisplay.value = newMake()", i*300);
2. 3.
setTimeout("window.status = newMake()", i*300);
4.
}
}

</SCRIPT></HEAD>
<BODY >
<HR> <CENTER>
<FORM NAME="z">
<INPUT NAME="textdisplay" TYPE="text" SIZE=25> <P>
<INPUT NAME="doit" Type="button" value = "Run Banner" onClick =
"doIt()" "> 5.
</FORM></CENTER>
<HR>
</BODY></HTML>

```

Below is a web page and beneath that is the HTML and JavaScript that generates the page. Some of the code is missing. Fill in the missing code.



```

1.<html>
2. <head>
3. <title>DOM Tests</title>
4. <script type="application/javascript">
5. function setBodyAttr(attr,value){
6. if (document.body) eval('document.body.'+attr+'="'+value+'");

```

```

7.     else notSupported();
8.     }
9.     </script>
10. </head>
11. <body>
12.     <div style="margin: .5in; height: 400;">
13.         <p><b><tt>text</tt>color</b></p>
14.         <form>
15.             <select onChange="setBodyAttr('text',           6.
16.                 this.options[this.selectedIndex].value);">       7.
17.                 <option value="black">black
18.                 <option value="darkblue">darkblue
19.             </select>
20.             <p><b><tt>bgColor</tt></b></p>
21.             <select onChange="setBodyAttr('bgColor',           8.
22.                 this.options[this.selectedIndex].value);">
23.                 <option value="white">white
24.                 <option value="lightgrey">gray
25.             </select>
26.             <p><b><tt>link</tt></b></p>
27.             <select onChange="setBodyAttr('link',           9.
28.                 this.options[this.selectedIndex].value);">
29.                 <option value="blue">blue
30.                 <option value="green">green
31.             </select> <small>
32.                 <a href="http://www.brownhen.com/dom_api_top.html"
33.                 id="sample">
34.                     (sample link)</a></small><br>
35.             </form>
36.             <form>
37.                 <input type="button" value="version" onclick="ver()" />
38.             </form>
39.         </div>
40. </body>
41. </html>

```

**Q10.** When the user selects the ‘blue option for ‘link’ what line is executed?

**Answer: line 27**

## PHP QUESTIONS [15 PTS]

Below are two screenshots of a web page, an initial screenshot, then after some fields have been filled in. A third screenshot shows the output after the submit button is clicked. Below is the PHP code that was used. Fifteen lines have some missing code. Each line is worth one point. Provide the missing code.

First Name:

Last Name:

Gender:

Male: ☐

Female: ☐

Please choose your favourite foods:

Steak: ☐

Pizza: ☐

Chicken: ☐

Enter your favorite quote!

Select a Level of Education:

Jr.High

Select your favourite time of day:

Morning

Day

Night

submit

First Name: Sam

Last Name: Pade

Gender:

Male: ☒

Female: ☐

Please choose your favourite foods:

Steak: ☒

Pizza: ☒

Chicken: ☒

to be or not to be,  
that is the question

Select a Level of Education:

College

Select your favourite time of day:

Morning

Day

Night

submit

Hello, Sam Pade.  
 You are Male, and you like Steak  
 Pizza  
*To be or not to be, that is the question*  
 You're favorite time is Morning, and you passed College!

```

<?php
    // if page is not submitted to itself echo the form
    if (!isset($_POST['submit'])) {
?>
<html>
<head>
<title>Personal INFO</title>
</head>
<body style="background-color: #8FD8D8">
<!--The form is submitted to itself-->
<form method="post" action="<?php echo $_SERVER['PHP_SELF'];?>">
    First Name:<input type="text" size="12" maxlength="12" name="Fname"><br />

    Last Name:<input type="text" size="12" maxlength="36" name="Lname"><br />

    Gender:<br />
    Male:<input type="radio" value="Male" name="gender"><br />
  
```

```

Female:<input type="radio" value="Female" name="gender"><br />

Please choose your favourite foods:<br />
Steak:<input type="checkbox" value="Steak" name="food[]"><br />
Pizza:<input type="checkbox" value="Pizza" name="food[]"><br />
Chicken:<input type="checkbox" value="Chicken" name="food[]"><br />

<textarea rows="5" cols="20" name="quote" wrap="physical">
Enter your favorite quote!</textarea><br />

Select a Level of Education:<br />
<select name="education">
<option value="Jr.High">Jr.High</option>
<option value="HighSchool">HighSchool</option>
<option value="College">College</option></select><br />

Select your favourite time of day:<br />
<select name="TofD" size="3">
<option value="Morning">Morning</option>
<option value="Day">Day</option>
<option value="Night">Night</option></select><br />

<input type="submit" value="submit" name="submit">
</form>
<?php
}
else
{
    //Extract information of the submitted form fields
    $Fname = $_POST["Fname"];
    $Lname = $_POST["Lname"];
    $gender = $_POST["gender"];
    $food = $_POST["food"];
    $quote = $_POST["quote"];
    $education = $_POST["education"];
    $TofD = $_POST["TofD"];

    echo "<body style='background-color: #8FD8D8'>";
    echo "Hello, " . $Fname . " " . $Lname . "<br />";
    echo "You are " . $gender . ", and you like ";
    //print the list of selected foods
    foreach ($food as $f) {
        echo $f . "<br />";
    }
    echo "<i>" . $quote . "</i><br />";
    echo "You're favorite time is " . $TofD . ", and you passed " . $education . "!<br />";
}

```

```
        echo "</body>";
    }
?>
```

## JAVASCRIPT REGULAR EXPRESSIONS QUESTIONS [5 PTS]

The regular expression below includes three sets of parentheses (...). Explain in one sentence the pattern contained in each of the parentheses.

```
var pattern = "^(\\w+)@([a-zA-Z_]+)\\.([a-zA-Z]{2,3})$";
```

**Q1. [5 pts]** What is the purpose of the pattern within the first set of parentheses?

(\\w+)

**Answer:** One or more alphanumeric characters

**Q2. [5 pts]** What is the purpose of the pattern within the second set of parentheses?

([a-zA-Z\_]+)

**Answer:** one or more alphabetic upper/lower case or underscore

**Q3. [5 pts]** What is the purpose of the pattern within the third set of parentheses?

([a-zA-Z]{2,3})

**Answer:** two or three alphabetic characters

**Q4. [5 pts]** What is the purpose of the ^ and the \$ ?

**Answer:** the ^ anchors the pattern at the start of the string. The \$ anchors the pattern at the end of the string;

JavaScript 1.5 introduced a new notation for Regular Expressions using the ?= notation. Please explain the meaning the following regular expression:

**Q5.** ?=.\*\\d

**Answer:** means at least one character that is a number

## CSS QUESTIONS [20 PTS]

Below are lines extracted from the CSS sheet of bing.com. For each line answer the question. Each question is worth four points.

**Q1. Give an HTML example usage of the declaration below:**

```
.spw_tb li{display:inline;line-height:normal}
```

**A1.**

```
<div class="spw_tb">
    <ul>
        <li>
        <li>
    </ul>
</div>
```

**Q2. What does this declaration do?**

```
a,body{color:#f00;text-decoration:none}
```

**A2. Changes the color to RED and text-decoration to NONE for the CSS properties for the A (Anchor) and BODY tags**

**Q3. Give two (2) HTML examples of usage of the declaration below:**

```
#hp_spw_hdr, .sw_tb div {display:inline}
```

**A3.**

```
<div id="hp_spw_hdr"> </div>
<table class="sw_tb">
    <div>
        some text
    </div>
</table>
```

**Q4. Write in the CSS to create a "class" named hp\_my\_logo that changes the CSS properties of background-position to 10 pixels, the margin\_top to -75 pixels and the height to 121 pixels.**

**A4.**

```
.hp_my_logo {background-position:10px;margin-top:-75px;height:121px}
```

**Q5. Give three (3) HTML examples of usage of the declaration below:**

```
#cbsCarousel, .carouselNav, p {
    color:#fff;
```

```
text-decoration:none;  
}
```

**A5.**

```
<div ID="cbsCarousel"> </div>  
<div class="carouselNav"> </div>  
<p> some text</p>
```

## **LYNDA.COM QUESTIONS [20 PTS]**

For each of the following questions, you will need to complete the answer provided. Each question is worth 2 points.

### **A. What is the box model?**

**Q1.** The box model is the term used to describe the **rules surrounding the physical properties** of all HTML elements.

**Q2.** Every single element on your web page is considered to be in a **rectangular box**.

**Q3.** The 4 properties of this box, **its width, height, padding, and margin** define not only the size of the element, but also the how it relates to the elements around it.

### **B. What is an XML Schema?**

**Q3.** An alternative way of **enforcing rules and constraints** on your XML data.

**Q4.** An alternative to using **DTDs**.

**Q5.** An XML schema allows you to constrain the document **content**.

**Q6.** In XML Schemas you can also do things like derive your own **types**.

### **C. What is an Array?**

**Q7.** An array is a single **variable that holds multiple values**.

**Q8.** To tell JavaScript this is an array, there are a few ways to do it, but the easiest one is this:

var multipleValues = **opening square bracket, closing square bracket**. – OR – [ ]

**Q9.** Arrays in JavaScript use what's called a **zero-based** index.

**Q10.** Because arrays are objects they have **properties and methods**.