

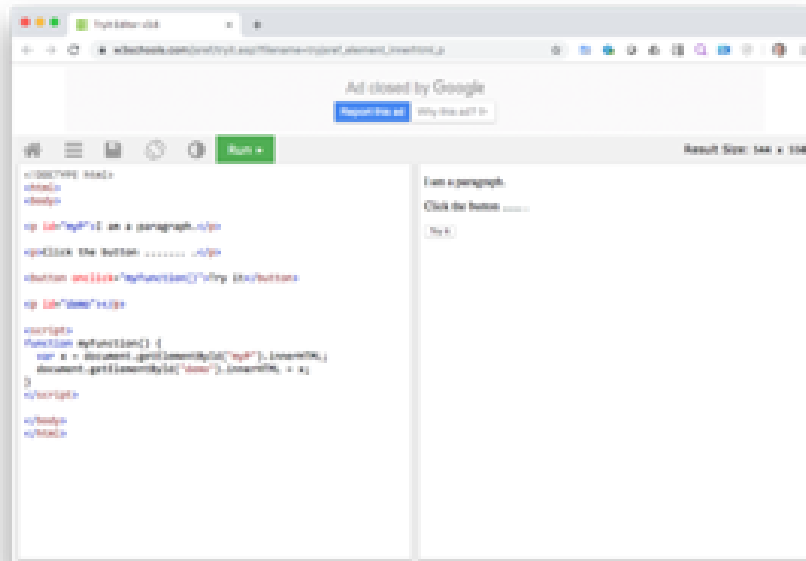
	Points		Points
HTML DOM	20	PHP	20
JavaScript / Regex	10	CSS	10
JavaScript	20		
HTTP	20		
	Total	100	

Instructions:

1. This is a 1 hour, 20 minutes exam. Closed book and notes.
2. No space other than the pages in the exam booklet will be scanned for grading.
3. If you require an additional page for a question, you can use the extra page provided within this booklet. However please indicate clearly that you are continuing the solution on the additional page.
4. Do not detach any sheets from the booklet. Detached sheets will not be scanned.
5. If using a pencil to write the answers, make sure you apply enough pressure, so your answers are readable in the scanned copy of your exam.

HTML DOM QUESTIONS [20 PTS]

Q1. (2.5 points) Consider the following example from w3schools.com:



The code is duplicated here:

```
<!DOCTYPE html>
<html>
<body>
<p id="myP">I am a paragraph.</p>
<p>Click the button .....</p>
<button onclick="myFunction()">Try it</button>

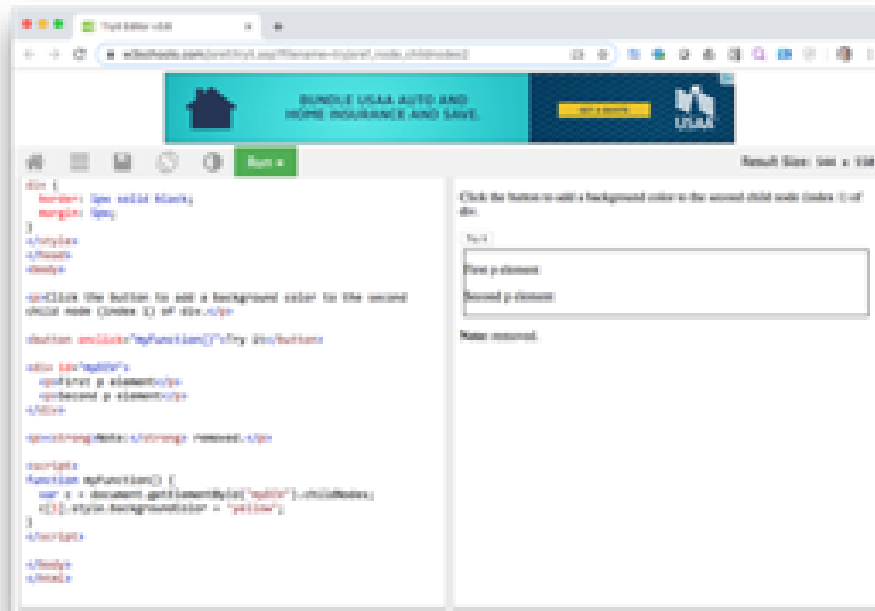
<p id="demo"></p>

<script>
function myFunction() {
  var x = document.getElementById("myP").innerHTML;
  document.getElementById("demo").innerHTML = x;
}
</script>
</body>
</html>
```

What happens when one clicks the “Try it” button?

A1. “I am a paragraph.” Is printed under the button

Q2. (2.5 points) Consider the following example from w3schools.com:



The code is duplicated here:

```
div {
  border: 1px solid black;
  margin: 5px;
}
</style>
</head>
<body>
```

<p>Click the button to add a background color to the second child node (index 1) of div.</p>

<button onclick="myFunction()">Try it</button>

```
<div id="myDIV">
  <p>First p element</p>
  <p>Second p element</p>
</div>
```

<p>Note: removed.</p>

```
<script>
function myFunction() {
  var c = document.getElementById("myDIV").childNodes;
  c[1].style.backgroundColor = "yellow";
}
```

```

}
</script>
</body>
</html>

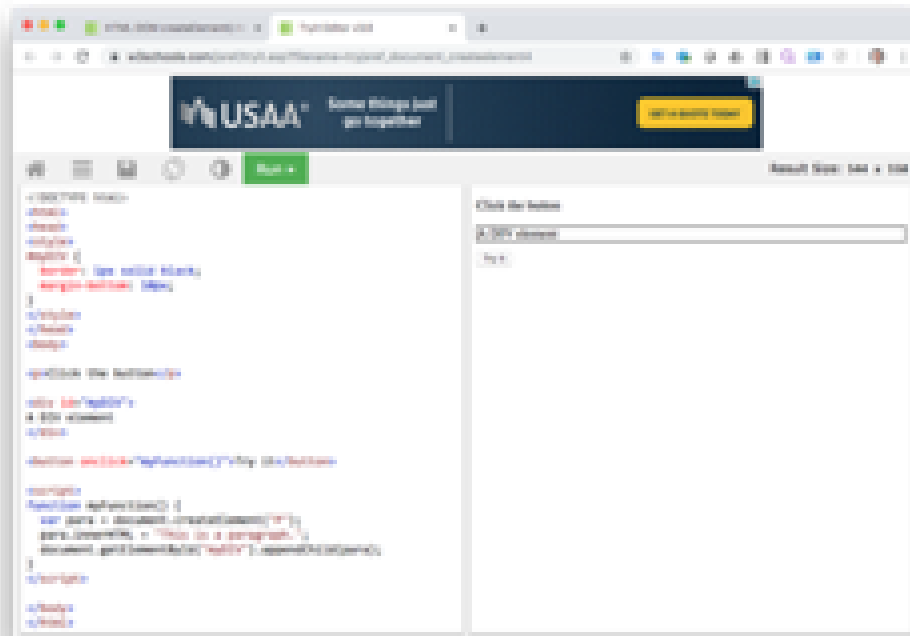
```

What happens when one clicks the “Try it” button?

A2. The background of “First p element” paragraph is changed to yellow. Look for “First p element” and “yellow”

Answering “Second p element” is INCORRECT

Q3. (2.5 points) Consider the following example from w3schools.com:



The code is duplicated here:

```

<!DOCTYPE html>
<html>
<head>
<style>
#myDIV {
  border: 1px solid black;
  margin-bottom: 10px;
}
</style>
</head>
<body>

```

```
<p>Click the button</p>
```

```
<div id="myDIV">
```

```
A DIV element
```

```
</div>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
function myFunction() {
```

```
    var para = document.createElement("P");
```

```
    para.innerHTML = "This is a paragraph.";
```

```
    document.getElementById("myDIV").appendChild(para);
```

```
}
```

```
</script>
```

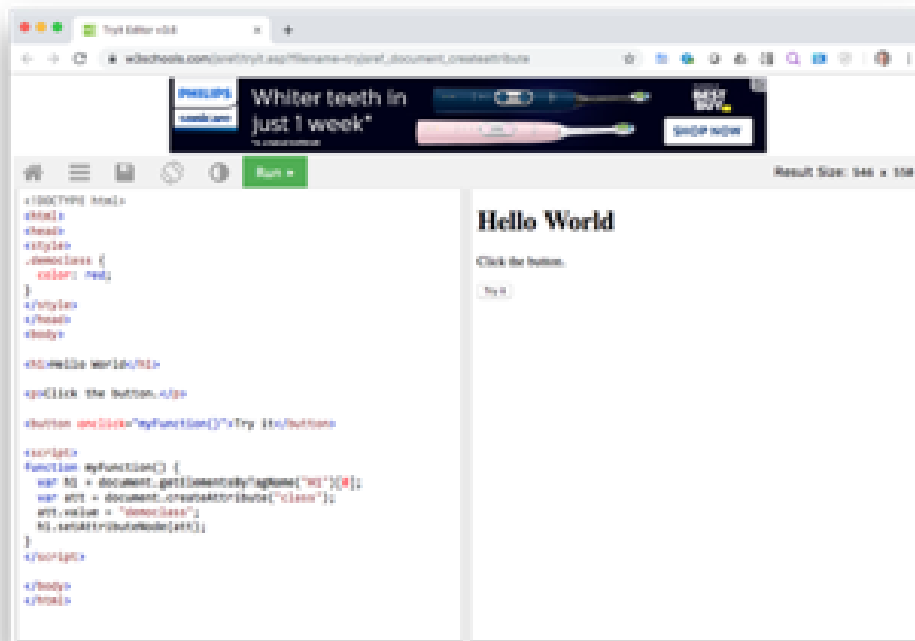
```
</body>
```

```
</html>
```

What happens when one clicks the “Try it” button?

A3. A new paragraph with the text “This is a paragraph” is created and inserted inside the box, under the “A DIV element” text. Look for “This is a paragraph” and “inside the box”.

Q4. (2.5 points) Consider the following example from w3schools.com:



The code is duplicated here:

```
<!DOCTYPE html>
<html>
<head>
<style>
.democlass {
  color: red;
}
</style>
</head>
<body>

<h1>Hello World</h1>

<p>Click the button.</p>

<button onclick="myFunction()">Try it</button>

<script>
function myFunction() {
  var h1 = document.getElementsByTagName("H1")[0];
  var att = document.createAttribute("class");
  att.value = "democlass";
  h1.setAttributeNode(att);
}
</script>

</body>
</html>
```

What happens when one clicks the “Try it” button?

A4. The (foreground) color of the text “Hello World” is changed to red. Look for “Hello World” and “red”

JAVASCRIPT REGULAR EXPRESSIONS QUESTIONS [10 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. [2.5 pts] What is the purpose of the pattern within the first set of parentheses? (\\w+)

A1: One or more **word character:** letters, numbers or underscores

Since the word character is [a-zA-Z_], underscore IS REQUIRED.

Instead of “letters and numbers”, “alphanumeric” is acceptable.

Also instead of letters “upper and lowercase alpha” is acceptable.

Q2. [2.5 pts] What is the purpose of the pattern within the second set of parentheses?

[a-zA-Z_]+)

A2: one or more alphabetic upper/lower case or underscore

NOTE: Also acceptable “one or more letters and underscore”

NOTE: alphanumeric ALONE is not enough. You MUST also mention “underscore”

Q3. [2.5 pts] What is the purpose of the pattern within the third set of parentheses?

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

A3: two or three upper or lowercase characters

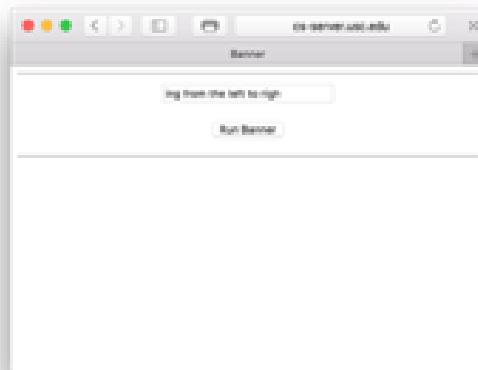
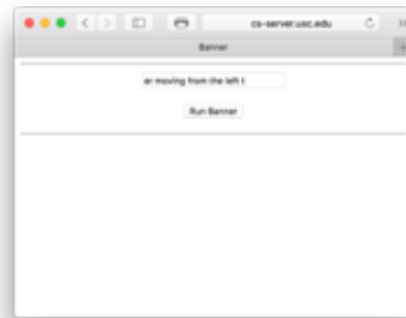
Q4. [2.5 pts] What is the purpose of the ^ and the \$?

A4: the ^ anchors the pattern at the start of the string. The \$ anchors the pattern at the end of the string;

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.

NOTE FOR GRADERS: NO PARTIAL CREDIT IN THIS SECTION, ALL ANSWERS MUST BE PERFECT



```
<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() {
  if (a >= slen) {
    a = -3;
    b = 0;
```



```

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

function doIt() {
for (var i = 1; i <= slen ; i++) {
setTimeout("document.z.textdisplay.value = newMake()", i*300);
    2. 3.
setTimeout("window.status = newMake()", i*300);
}
}

</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 alert('browser does not support the functionality of changing
color');
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" id="sample">
33.                 (sample link)</a></small><br>
34.         </form>
35.         <form>
36.             <input type="button" value="version" onclick="alert("version 1")" />
37.         </form>
38.     </div>
39. </body>
40.</html>

```

Q10. When the user selects the 'blue' option for 'link' what line is executed?

A10: line 27 or "lines 27 and 28"

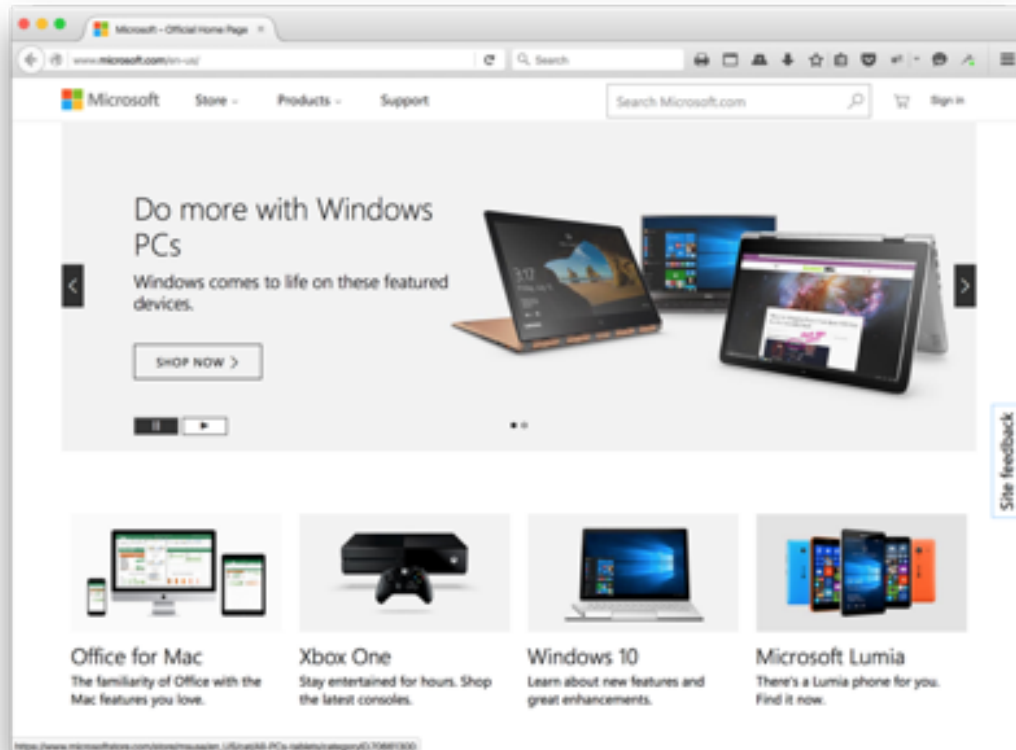
Note for graders: answer to Q2 would also be:

Alternative 2: document.getElementsByName('textdisplay')[0].value

Alternative 3: "SetBodyAttr is executed in lines 5-8", so "lines 5 though 8" is also acceptable. Linde 5 alone is NOT acceptable

HTTP QUESTIONS [20 PTS]

Below is the web page www.microsoft.com. Following that is part of the exchange of Request / Response between the browser and the server. Answer the questions that follow. NOTICE: NO PARTIAL CREDIT on any of the questions.



(1) <http://microsoft.com/>

GET / HTTP/1.1

Host: microsoft.com

User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)

Gecko/20100101 Firefox/43.0

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

DNT: 1

Connection: keep-alive

HTTP/1.1 301 Moved Permanently

Content-Type: text/html; charset=UTF-8

Location: http://www.microsoft.com/
Server: Microsoft-IIS/8.5
X-Powered-By: ASP.NET
Date: Sat, 01 Oct 2016 19:55:43 GMT
Content-Length: 148

(2) http://www.microsoft.com/

GET / HTTP/1.1
Host: www.microsoft.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
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
DNT: 1
Connection: keep-alive

HTTP/1.1 302 Moved Temporarily
Server: AkamaiGHost
Content-Length: 0
Location: http://www.microsoft.com/en-us/
Date: Sat, 01 Oct 2016 19:55:44 GMT
Connection: keep-alive
X-CCC: US
X-CID: 2

(3) http://www.microsoft.com/en-us/

GET /en-us/ HTTP/1.1
Host: www.microsoft.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
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
DNT: 1
Connection: keep-alive

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Content-Type: text/html
Expires: -1
Server: Microsoft-IIS/8.0
CorrelationVector: w/wiET7pBEKkMsHf.1.1
X-AspNet-Version: 4.0.30319
X-Powered-By: ASP.NET

access-control-allow-headers: Origin, X-Requested-With, Content-Type, Accept
access-control-allow-methods: GET, POST, PUT, DELETE, OPTIONS
access-control-allow-credentials: true
X-Frame-Options: SAMEORIGIN
Vary: Accept-Encoding
Content-Encoding: gzip
Date: Sat, 01 Oct 2016 19:55:45 GMT
Content-Length: 16412
Connection: keep-alive
X-CCC: US
X-CID: 2

(4) https://cdn.optimizely.com/js/6212760188.js

GET /js/6212760188.js HTTP/1.1
Host: cdn.optimizely.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
Accept: */*
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Cookie: cdn=http%3a%2f%2fedgecast%3ahs%40na
Connection: keep-alive

HTTP/1.1 200 OK
Content-Encoding: gzip
Accept-Ranges: bytes
Cache-Control: max-age=120
Content-Type: text/javascript
Date: Sat, 01 Oct 2016 19:55:45 GMT
Etag: "02e0973efd4a0abdaeaf617855e82b0"
Last-Modified: Fri, 30 Sep 2016 22:00:48 GMT
Server: ECS (oxr/83AA)
Set-Cookie: cdn=http%3a%2f%2fedgecast%3ahs%40na; path=/; domain=.optimizely.com
Timing-Allow-Origin: *
Vary: Accept-Encoding
x-amz-meta-revision: 939
X-Cache: HIT
Content-Length: 46965

(5) http://ajax.aspnetcdn.com/ajax/jquery/jquery-1.7.2.min.js

GET /ajax/jquery/jquery-1.7.2.min.js HTTP/1.1
Host: ajax.aspnetcdn.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
Accept: */*

Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Connection: keep-alive

HTTP/1.1 200 OK
Content-Encoding: gzip
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Cache-Control: public, max-age=28778572
Content-Type: application/x-javascript
Date: Sat, 01 Oct 2016 19:55:45 GMT
Etag: "08be15d9b7cd1:0"
Last-Modified: Wed, 21 Mar 2012 19:46:54 GMT
Server: ECACC (oxr/8372)
Vary: Accept-Encoding
VTag: 791105556000000000
X-Cache: HIT
X-CCC: US
X-CID: 2
X-Powered-By: ASP.NET, ARR/2.5, ASP.NET
Content-Length: 42690

(6)
http://c.s-microsoft.com/en-us/CMSStyles/style.csx?k=82f5f57f-a81c-5468-be33-6bcc6578cbaa_20d3f19f-9acc-5455-5927-c0990d073641_0a295c26-3eb3-4234-019c-1bfc9e5a6b62

GET
/en-us/CMSStyles/style.csx?k=82f5f57f-a81c-5468-be33-6bcc6578cbaa_20d3f19f-9acc-5455-5927-c0990d073641_0a295c26-3eb3-4234-019c-1bfc9e5a6b62 HTTP/1.1
Host: c.s-microsoft.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
Accept: text/css,*/*;q=0.1
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Connection: keep-alive

HTTP/1.1 200 OK
Content-Type: text/css
Etag: "W6rYhhZZBgFHVq7VS01RuQ=="
Server: Microsoft-IIS/8.0
X-AspNet-Version: 4.0.30319
X-Powered-By: ASP.NET
access-control-allow-headers: Origin, X-Requested-With, Content-Type, Accept
access-control-allow-methods: GET, POST, PUT, DELETE, OPTIONS

access-control-allow-credentials: true
P3P: CP="ALL IND DSP COR ADM CONo CUR CUSo IVAo IVDo PSA PSD TAI TELo OUR SAMo
CNT COM INT NAV ONL PHY PRE PUR UNI"
X-Frame-Options: SAMEORIGIN
Vary: Accept-Encoding
Content-Encoding: gzip
Cache-Control: private, max-age=243784
Expires: Tue, 04 Oct 2016 15:38:49 GMT
Date: Sat, 01 Oct 2016 19:55:45 GMT
Content-Length: 7845
Connection: keep-alive

(7)
https://c.s-microsoft.com/en-in/CMSImages/HPFeb15_social_Twitter.png?version=8cd2eefc-dabe-c03f-8302-0f5c5956a70d

GET
/en-in/CMSImages/HPFeb15_social_Twitter.png?version=8cd2eefc-dabe-c03f-8302-0f5c5956a70d HTTP/1.1
Host: c.s-microsoft.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Connection: keep-alive

HTTP/2.0 200 OK
Content-Type: image/png
Etag: "IGmsUtXaZlEOxcE7+cxDKw=="
Server: Microsoft-IIS/8.0
X-AspNet-Version: 4.0.30319
X-Powered-By: ASP.NET
access-control-allow-headers: Origin, X-Requested-With, Content-Type, Accept
access-control-allow-methods: GET, POST, PUT, DELETE, OPTIONS
access-control-allow-credentials: true
X-Frame-Options: SAMEORIGIN
Content-Length: 252
Cache-Control: private, max-age=444895
Expires: Thu, 06 Oct 2016 23:30:40 GMT
Date: Sat, 01 Oct 2016 19:55:45 GMT
X-Firefox-Spdy: h2

(8)
<http://img-prod-cms-rt-microsoft-com.akamaized.net/cms/api/am/imageFileData/REGxSu?ver=6d63>

GET /cms/api/am/imageFileData/REGxSu?ver=6d63 HTTP/1.1
Host: img-prod-cms-rt-microsoft-com.akamaized.net
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Connection: keep-alive

HTTP/1.1 200 OK
Content-Type: image/jpeg
Content-Location:
http://img-prod-cms-rt-microsoft-com.akamaized.net/cms/api/am/imageFileData/REGxSu?ver=6d63
Last-Modified: Tue, 27 Sep 2016 15:38:09 GMT
Server: Microsoft-IIS/8.5
Access-Control-Allow-Origin: *
X-Source-Length: 9782
X-Datacenter: centralus
X-ActivityId: df613390-346f-4f6d-9bf9-d2f460b206ca
X-Instance: Resizer.Web_IN_3
X-Deployment: dead43a81c7541a2946372259a12ad24
Timing-Allow-Origin: *
X-AspNet-Version: 4.0.30319
X-Powered-By: ASP.NET
Content-Length: 9782
Cache-Control: public, max-age=70904
Expires: Sun, 02 Oct 2016 15:37:29 GMT
Date: Sat, 01 Oct 2016 19:55:45 GMT
Connection: keep-alive

(9) <https://www.microsoft.com/en-us/silentauth>

GET /en-us/silentauth HTTP/1.1
Host: www.microsoft.com
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.11; rv:43.0)
Gecko/20100101 Firefox/43.0
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
DNT: 1
Connection: keep-alive

HTTP/2.0 302 Found
Content-Length: 0
Location:
<https://login.live.com:443/login.srf?wa=wsignin1.0&rpsnv=13&checkda=1&ct=147535>


```
1747&rver=6.7.6643.0&wp=MBI&wreply=https%3a%2f%2fwww.microsoft.com%2fen-us%2fsi
lentaauth%3fsilentauth%3dmsa&lc=1033&id=74335&aadredir=1
Server: Microsoft-IIS/8.5
P3P: CP="ALL IND DSP COR ADM CONo CUR CUSo IVAo IVDo PSA PSD TAI TELo OUR SAMo
CNT COM INT NAV ONL PHY PRE PUR UNI"
X-Powered-By: ASP.NET, ARR/2.5, ASP.NET
access-control-allow-headers: Origin, X-Requested-With, Content-Type, Accept
access-control-allow-methods: GET, POST, PUT, DELETE, OPTIONS
access-control-allow-credentials: true
X-Frame-Options: SAMEORIGIN
Expires: Sat, 01 Oct 2016 19:55:47 GMT
Cache-Control: max-age=0, no-cache, no-store
Pragma: no-cache
Date: Sat, 01 Oct 2016 19:55:47 GMT
Set-Cookie: MS-CV=w/wiET7pBEKkMsHf.3; domain=.microsoft.com; expires=Sun,
02-Oct-2016 19:55:47 GMT; path=/
X-CCC: US
X-CID: 2
X-Firefox-Spdy: h2
-----
```

Q1. What is the name of the web server that returns the Microsoft home page HTML?

A1: **Microsoft-IIS/8.0** (notice Microsoft-IIS/8.5 is incorrect)

Q2. How big in “bytes” is the www.microsoft.com home page?

A2: **16412 bytes**

Q3. What CDN or CDNs deliver the JavaScript used in www.microsoft.com?

A3: **cdn.optimizely.com and ajax.aspnetcdn.com** (PARTIAL CREDIT OK)

Q4. List any transactions that are “compressed”.

A4: **#3, #4, #5, #6** (give partial credit: 0.5 for each of the 4 solutions)

Q5. How many redirects are executed before the Microsoft homepage is displayed? And what response status codes are returned?

A5: **2 redirects, 301 Moved permanently and 302 Moved Temporarily**

Q6. List all servers used in these transactions?

A6: Microsoft-IIS/8.5, AkamaiGHost, Microsoft-IIS/8.0, ECS, ECAcc, (PARTIAL CREDIT OK)

NOTE: Microsoft-IIS/8.5 and Microsoft-IIS/8.0 are NOT the same server

NOTE: server is not the same as “hostname”

Q7. What type of connections are being used in these transactions?

A7: Keep-alive or Persistent

Q8. Transaction (7) includes the header X-Firefox-Spdy. What is Spdy?

A8: SPDY is Google HTTP speedup with header compression now included in HTTP/2. Answer MUST include “Header compression”.

Q9. What type of compression is supported by the Firefox browser used in these transactions?

A9: gzip and deflate

Mentioning ONLY one of gzip / deflate give NO PARTIAL CREDIT. BOTH must be listed.

Q10. How long after the execution of these transactions will the Twitter image need to be refreshed, if requested again?

A10: About 5 days (+ 3 hours and 35 minutes to be exact). Answer in “minutes” OK (anything close to 440,000)

PHP QUESTIONS [20 PTS]

Each question is worth 5 points.

Q1: Which of the following is true in PHP?

A1:

- ☒ PHP is not strictly typed
- ☒ Function names are not case-sensitive
- ☒ Identifiers cannot contain spaces.
- ☐ Local variables are restricted only to a function
- ☐ Variable names begin with a dollar sign (\$) followed by letters, numbers or underscore (_)
- ☐ ALL OF THE ABOVE
- ☐ NONE OF THE ABOVE

NOTE TO GRADERS: NO PARTIAL CREDIT. “Only to a function” IS a trick question, since “Only” is INCORRECT.

POST EXAM: 5th selection is FALSE

Q2: What does the variable PHP_POST contain?

A2: **an array of variable names and values sent by the HTTP POST method, as a result of a FORM submission -- BAD QUESTION.** Should have been **\$_POST**. -- **DO NOT CUT POINTS TO ANYONE.**

Q3: Consider the PHP code snippet:

```
<?php
$foo = 25;                // Numerical variable
$bar = "Hello";          // String variable
echo "5x5=$foo";
?>
```

What string gets printed in the output?

A3: 5x5=25 (no spaces)

Q4: Assume a form contains one textbox named “mySSN”, and the form is submitted using the POST method. How would a PHP script access the form data?

A4: \$_POST['mySSN'] (accept only complete answer) . PHP_POST is not acceptable.

Q5: Why is the following code invalid in PHP?

```
If (condition) Then
{
    Statements;
}
Else
{
    Statement;
}
```

A5: because there is no “Then” in PHP

CSS QUESTIONS [10 PTS]

Below are lines extracted from the CSS sheet of microsoft.com. For each line answer the question. Each question is worth one point.

```
html, body, div, p, table, td, form, img, h1, h2, h3, h4, h5, h6,
input { font-family: Tahoma, Verdana, Segoe, sans-serif; padding: 0px;
margin: 0px; border: 0px transparent none; background-position: left
top; background-repeat: no-repeat; }
```

Q1. Explain the purpose of the line above

A1: Changes fonts, border, margin and other layout settings for 15 tags all at once.

This is not a CSS “reset”. No credit to anyone that answered CSS reset.

```
a:active, a:hover { color: #4E7DC2; text-decoration: underline; }
```

Q2. Explain the purpose of the line above

A.: It modifies the color and underlines the text of active hyperlinks or hyperlinks where the mouse is over.

```
#page { margin-left: auto; margin-right: auto; width: 934px;
position: relative; top: 0px; }
```

Q3. Explain the purpose of the line above

A3: It creates an “ID Attribute” named #page, and it applies the listed CSS style properties to elements with id=page.

```
.patent { font-size: 82%; font-family: Tahoma; margin: 0px 17px 10px
0px; color: #AECADDE; clear: both; }
```

Q4. On the line above, what is “patent”?

A4: A “class” name

```
#superNav { position: absolute; top: 49px; right: 15px; width: 192px;
z-index: 70; }
```

Q5. On the line above, what is “superNav”?

A5: An “ID Attribute” name

```
html, body, div, span, applet, object, iframe, h1, h2, h3, h4, h5, h6,
p, blockquote, pre, a, abbr, acronym, address, big, cite, code, del,
dfn, em, img, ins, kbd, q, s, samp, small, strike, strong, sub, sup,
tt, var, b, u, i, center, dl, dt, dd, ol, ul, li, fieldset, form, label,
legend, table, caption, tbody, tfoot, thead, tr, th, td,
article, aside, canvas, details, embed, figure, figcaption, footer,
header, hgroup, menu, nav, output, ruby, section, summary, time, mark,
audio, video {
    margin: 0; padding: 0; border: 0; font-size: 100%; font:
inherit; vertical-align: baseline;}
```

Q6. What kind of CSS style sheet would include the CSS code above?

A6: CSS reset. Look for “reset” in the answer.

“Fallback CSS” is NOT an acceptable answer.

Q7. A style for tag.class has higher precedence than one for .class. True or False?

A7: True

```
<html><head>
<style>
a:link {color:#FF0000;} /* unvisited link (red)*/
a:visited {color:#00FF00;} /* visited link (green)*/
</style>
</head><body>
```

Q8. On the lines above, what are :link and :visited?

A8: Pseudo Classes. Look for “Pseudo classes” in the answer.

```
-moz-border-radius: 10px 5px
```

Q9. On the lines above, what is the purpose of the -moz-border-radius browser vendor prefix?

A9: Browser vendor prefixes are a way for browser makers to add support for new CSS features during testing and experimentation period.

“set the border radius in a Mozilla Firefox browser” get only partial credit

Q10. In HTML 4 what was the rationale for developing CSS Style Sheets?

A10: Separating the specification of “style” from specification of “content”. Look for “style and “content”