

Computer Science 571 Exam #1
Prof. Papa
Tuesday, October 3, 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.

PHP QUESTIONS [10 PTS]

Each question is worth 2 points.

Q1: Which of the following is true in PHP for rules that must be followed when naming a variable?

A1:

- ☒ **Must begin with a dollar sign**
- ☐ **The first character after the dollar sign must be an uppercase letter or underscore**
- ☐ **Identifiers can contain spaces.**
- ☒ **May contain uppercase and lowercase letters, numbers and underscores**
- ☒ **Identifiers are case sensitive**
- ☐ **ALL OF THE ABOVE**
- ☐ **NONE OF THE ABOVE**

Q2: What is the purpose of a variable declared “static”?

A2: it does not disappear (from the stack) when a function is completed, and its value is retained

Q3: Consider the PHP code snippet:

```
<?php
$vat_rate = 0.175;
echo $vat_rate * 100 . "%";
?>
```

What is the output produced?

A3: 17.5%

Q4: Consider this PHP code snippet:

```
<?php
function foo($arg_1, $arg_2)
{
    $arg_2 = $arg_1 * $arg_2;
    return $arg_2;
}
$result_1 = foo(12, 3);
echo $result_1;
echo foo(12, 3);
?>
```

What is the output produced?

A4:

36

36

Q5: For this question, you will use a list of five of the largest cities in the world. (Please note, these are not the ten largest, just a selection of five from the largest cities.) Create an array with the following values: Tokyo, Mexico City, New York City, Mumbai, and Seoul.

Print these values to the browser separated by commas, using a loop to iterate over the array. This question is worth 2 points. There is NO PARTIAL CREDIT.

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en"
lang="en">
<head>
<meta http-equiv="content-type"
content="text/html; charset=iso-8859-1" />
<title>Simple Array Loop - Cities</title>
</head>

<body>
<h2>Large Cities<br /></h2>

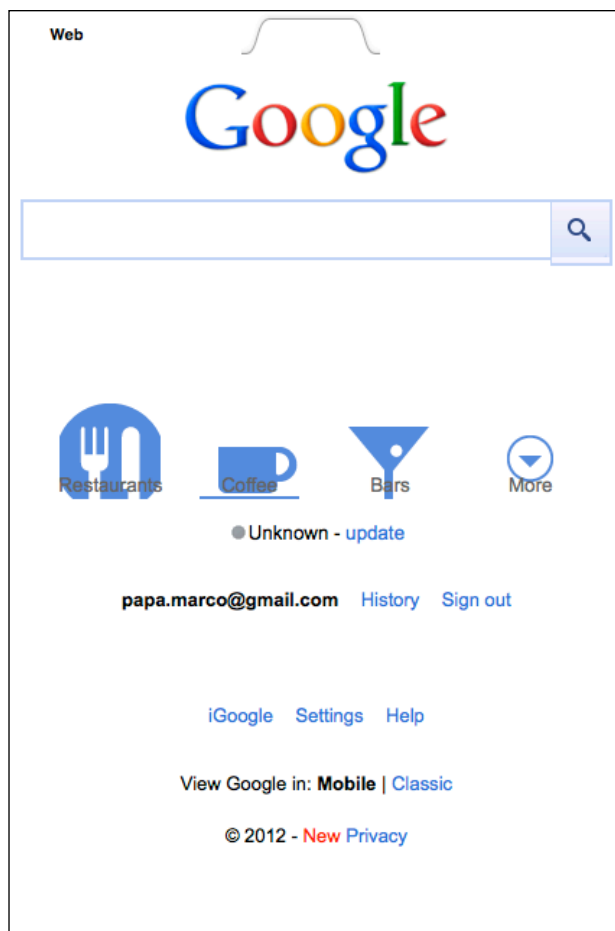
<?php
//Create array.
$cities=array(
    "Tokyo",
    "Mexico City",
    "New York City",
    "Mumbai",
    "Seoul"
);
```

```
//Print values of array to browser, separated by commas.
foreach($cities as $c){
    echo "$c, ";
}
?>

</body>
</html>
```

Note for graders: 1 point for the array declaration and 1 point for the for loop. NO partial credit.

HTTP QUESTIONS [20 PTS]



The picture above is a snapshot of an iPhone, accessing Google Mobile. Below is part of an exchange of messages between the browser and www.google.com. Answer the questions that follow. Each question is worth 2 points. NOTICE: there is NO PARTIAL CREDIT on any of the questions.

Transaction 1:

http://google.com/

GET / HTTP/1.1
Host: google.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X; en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341 Safari/528.16
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
Connection: keep-alive
Cookie: rememberme=true;
SID=DQAAALYAAAAOxSu9gLe_6MAJNuIGaUI_yJdQ0QWUWcpQsfOTEistdIDmSJZsy5JFCh7NldGmMHJkFQIHXudOThLmujz901DIc1UzI7hrD755ZvuA3Cf5U0mv4UT7eu_oxXNFxPwAsXvjEi0TnpjY7TgfuZLjSBVgW8EP_zhUC99XkK5OQDFST0MrPVqa2S-4rHhL1N06UuOBkTN4AlluzZNWzX-cNvK2fWh2K-CjnU1QaLGII9VzbqAlR_plGLuyEVplglvRdMw;
PREF=ID=7c6e6b3cd9a5942f:U=9f44cf0a8279d4ac:FF=0:TM=1303788727:LM=1329725620:GM=1:S=jWjIj_kEdiM2B96x; HSID=AUqWe6aXETXwIKOsF; APISID=A3CWXKT-sm9ltGqG/ADSVUh9mFFvh2vAhG; NID=57=e5Q8Xz-stt_quQcEEBoXnYgHQnQy3mm0fSg53PazgSopWb-LamVecmHDrS0tyLgzMbgCCTgYkuOp6udRm8ql2XbbggDfBUtIQz5D86wOYLg321Lk262PuDu_AmE2ypMr; PP_TOS_ACK=2

HTTP/1.1 301 Moved Permanently
Location: http://www.google.com/
Content-Type: text/html; charset=UTF-8
Date: Mon, 20 Feb 2012 08:35:40 GMT
Expires: Wed, 21 Mar 2012 08:35:40 GMT
Cache-Control: public, max-age=2592000
Server: gws
Content-Length: 219
X-XSS-Protection: 1; mode=block
x-frame-options: SAMEORIGIN

Transaction 2:

http://www.google.com/

GET / HTTP/1.1
Host: www.google.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X; en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341 Safari/528.16
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
Connection: keep-alive
Cookie: rememberme=true;
SID=DQAAALYAAAAOxSu9gLe_6MAJNuIGaUI_yJdQ0QWUWcpQsfOTEistdIDmSJZsy5JFCh7NldGmMHJkFQIHXudOThLmujz901DIc1UzI7hrD755ZvuA3Cf5U0mv4UT7eu_oxXNFxPwAsXvjEi0TnpjY7TgfuZLjSBVgW8EP_zhUC99XkK5OQDFST0MrPVqa2S-4rHhL1N06UuOBkTN4AlluzZNWzX-cNvK2fWh2K-CjnU1QaLGII9VzbqAlR_plGLuyEVplglvRdMw;
PREF=ID=7c6e6b3cd9a5942f:U=9f44cf0a8279d4ac:FF=0:TM=1303788727:LM=1329725620:GM=1:S=jWjIj_kEdiM2B96x; HSID=AUqWe6aXETXwIKOsF; APISID=A3CWXKT-sm9ltGqG/ADSVUh9mFFvh2vAhG; NID=57=e5Q8Xz-stt_quQcEEBoXnYgHQnQy3mm0fSg53PazgSopWb-

LamVecmHDrS0tyLgzMbgCCtgYkuOp6udRm8ql2XbbggDfBUtIQz5D86wOYLG321Lk262PuD
u_AmE2ypMr; PP_TOS_ACK=2

HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8
Content-Encoding: gzip
Transfer-Encoding: chunked
Date: Mon, 20 Feb 2012 08:35:40 GMT
Server: gws
Cache-Control: private
X-XSS-Protection: 1; mode=block
x-frame-options: SAMEORIGIN

Transaction 3:

<http://www.google.com/images/srpr/logo3w.png>

GET /images/srpr/logo3w.png HTTP/1.1
Host: www.google.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X; en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341 Safari/528.16
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.google.com/
Cookie: rememberme=true;
SID=DQAAALYAAAAOxSu9gLe_6MAJNuIGaUI_yJdQ0QWUWcpQsfOTEistdIDmSJZsy5JFCh7NldGmMHJkFQIHXudOThLmujz901DlclUzI7hrD755ZvuA3Cf5U0mv4UT7eu_oxXNFxPwAsXvjEi0TnpjY7TgfuZLjSBVgW8EP_zhUC99XkK5OQDFST0MrPVqa2S-4rHhL1N06UuOBkTN4AlluzZNWzX-cNvK2fWh2K-CjnU1QaLGII9VzbqAlR_plGLuyEVplglvRdMw;
PREF=ID=7c6e6b3cd9a5942f:U=9f44cf0a8279d4ac:FF=0:TM=1303788727:LM=1329725620:GM=1:S=jWjIj_kEdiM2B96x; HSID=AUqWe6aXETXwIKoSf; APISID=A3CWXKT-sm9ltGqG/ADSVUh9mFFvh2vAhG; NID=57=e5Q8Xz-stt_quQcEEBoXnYgHQnQy3mm0fSg53PazgSopWb-LamVecmHDrS0tyLgzMbgCCtgYkuOp6udRm8ql2XbbggDfBUtIQz5D86wOYLG321Lk262PuD u_AmE2ypMr; PP_TOS_ACK=2

HTTP/1.1 200 OK
Content-Type: image/png
Last-Modified: Fri, 05 Aug 2011 02:40:26 GMT
Date: Mon, 20 Feb 2012 08:35:40 GMT
Expires: Mon, 20 Feb 2012 08:35:40 GMT
Cache-Control: private, max-age=31536000
X-Content-Type-Options: nosniff
Server: sffe
Content-Length: 7007
X-XSS-Protection: 1; mode=block

Transaction 4:

http://www.google.com/extern_js/f/CgJlbhICdXMrMEU4ACwrMFo4ACwrMA44ACwrMBc4ACwrMDw4ACwrMFE4ACwrMAo4AJJoCA21vYiwrMJgBOAAsKzAWOAAsKzAZOAAsKzBBOAAsKzBNOAAsKzBOOAAsKzBTOAAsKzBUOAAsKzBpOAAsKzBrOAAsKzB2OAAsKzB7OAAsKzCAATgALCswAE4ACwrMIwBOAAsKzCQATgALCswkgE4ACwrMJYBOAAsKzCjATgALCswqAE4ACwrMKwBOAAsKzCzATgALCswvgE4ACwrMMwBOAAsKzDVATgALCsw2AE4ACwrMIYBOAAsKzCRATgALCswpAE4ACwrMBg4ACwrMCY4ACyAAlaQAmU/csmWpFDHhv8.js

GET
/extern_js/f/CgJlhbICdXMrMEU4ACwrMFO4ACwrMA44ACwrMBc4ACwrMDw4ACwrMFE4ACwrMAo4AJocA21vYiwrMJgBOAAsKzAWOAAKzAZOAAKzBBOAAsKzBNOAAsKzBOOAAsKzBTOAAsKzBUOAAsKzBpOAAsKzBrOAAsKzB2OAAsKzB7OAAsKzCAATgALCswAE4ACwrMIwBOAAsKzCQATgALCswkgE4ACwrMJYBOAAsKzCjATgALCswqAE4ACwrMKwBOAAsKzCzATgALCswvgE4ACwrMMwBOAAsKzDVATgALCsw2AE4ACwrMIYBOAAsKzCRATgALCswpAE4ACwrMBg4ACwrMCY4ACyAAlaQAmU/csMWpFDHhv8.js HTTP/1.1
Host: www.google.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X; en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341 Safari/528.16
Accept: */*
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.google.com/
Cookie: rememberme=true;
SID=DQAAALYAAAAOxSu9gLe_6MAJNuIGaUI_yJdQ0QWUWcpQsfOTEistdIDmSJZsy5JFCh7NldGmMHJkFQIHxudOTLmuJz901DlclUzI7hrD755ZvuA3Cf5U0mv4UT7eu_oxXNFxPwAsXvjEi0TnpjY7TgfuZLjSBVgW8EP_zhUC99XkK5OQDFST0MrPVqa2S-4rHhLlN06UuOBkTN4AlluzZNWzX-cNvK2fWh2K-CjnU1QaLGII9VzbqAlR_plGLuyEVplglvRdMw;
PREF=ID=7c6e6b3cd9a5942f:U=9f44cf0a8279d4ac:FF=0:TM=1303788727:LM=1329725620:GM=1:S=jWjIj_kEdiM2B96x; HSID=AUqWe6aXETXwIKOsF; APISID=A3CWXKT-sm9ltGqG/ADSVUh9mFFvh2vAhG; NID=57=e5Q8Xz-stt_quQcEEBoXnYgHQnQy3mm0fSg53PazgSopWb-LamVecmHDrSotYlgZMbgCCtgYkuOp6udRm8ql2XbbggDfBUtIQz5D86wOYLG32lLk262PuDu_AmE2ypMr; PP_TOS_ACK=2

HTTP/1.1 200 OK
Content-Type: text/javascript; charset=UTF-8
Expires: Fri, 15 Feb 2013 00:00:00 GMT
Last-Modified: Fri, 18 Feb 2011 00:00:00 GMT
Date: Fri, 17 Feb 2012 21:10:37 GMT
Vary: Accept-Encoding
Content-Disposition: attachment
Content-Encoding: gzip
Server: gws
Content-Length: 84238
X-XSS-Protection: 1; mode=block
x-frame-options: SAMEORIGIN
Cache-Control: public, max-age=31536000
Age: 213903

Transaction 5:

<http://www.google.com/mbd?hl=en&output=search&mbtype=56>

GET /mbd?hl=en&output=search&mbtype=56 HTTP/1.1
Host: www.google.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X; en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341 Safari/528.16
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
Connection: keep-alive
Referer: http://www.google.com/

Cookie: rememberme=true;
SID=DQAAALYAAAAOxSu9gLe_6MAJNuIGaUI_yJdQ0QWUWcpQsfOTEistdIDmSJZsy5JFCh7
NldGmMHJkFQIHxudOThLmujz901DIc1UzI7hrD755ZvuA3Cf5U0mv4UT7eu_oxXNFxPwAsX
vjEi0TnpjY7TgfuZLjSBVgW8EP_zhUC99XkK5OQDFST0MrPVqa2S-
4rHhLlN06UuOBkTN4AlluzZNWzX-cNvK2fWh2K-
CjnU1QaLGII9VzbqAlR_plGLuyEVplglvRdMw;
PREF=ID=7c6e6b3cd9a5942f:U=9f44cf0a8279d4ac:FF=0:TM=1303788727:LM=13297
25620:GM=1:S=jWjIj_kEdiM2B96x; HSID=AUqWe6aXETXwIKOsF; APISID=A3CWXKT-
sm9ltGqG/ADSVUh9mFFvh2vAhG; NID=57=e5Q8Xz-
stt_quQcEEBoXnYgHQnQy3mm0fSg53PazgSopWb-
LamVecmHDrS0tyLgzMbgCCtgYkuOp6udRm8ql2XbbggDfBUtIQz5D86wOYLG32lLk262PuD
u_AmE2ypMr; PP_TOS_ACK=2

HTTP/1.1 200 OK
Cache-Control: private, max-age=0
Content-Type: text/html; charset=UTF-8
Date: Mon, 20 Feb 2012 08:35:40 GMT
Expires: -1
Content-Encoding: gzip
Server: gws
Content-Length: 103
X-XSS-Protection: 1; mode=block
x-frame-options: SAMEORIGIN

Transaction 6:

http://clients1.google.com/generate_204

GET /generate_204 HTTP/1.1
Host: clients1.google.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X;
en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341
Safari/528.16
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.google.com/
Cookie: rememberme=true;
SID=DQAAALYAAAAOxSu9gLe_6MAJNuIGaUI_yJdQ0QWUWcpQsfOTEistdIDmSJZsy5JFCh7
NldGmMHJkFQIHxudOThLmujz901DIc1UzI7hrD755ZvuA3Cf5U0mv4UT7eu_oxXNFxPwAsX
vjEi0TnpjY7TgfuZLjSBVgW8EP_zhUC99XkK5OQDFST0MrPVqa2S-
4rHhLlN06UuOBkTN4AlluzZNWzX-cNvK2fWh2K-
CjnU1QaLGII9VzbqAlR_plGLuyEVplglvRdMw;
PREF=ID=7c6e6b3cd9a5942f:U=9f44cf0a8279d4ac:FF=0:TM=1303788727:LM=13297
25620:GM=1:S=jWjIj_kEdiM2B96x; HSID=AUqWe6aXETXwIKOsF; APISID=A3CWXKT-
sm9ltGqG/ADSVUh9mFFvh2vAhG; NID=57=e5Q8Xz-
stt_quQcEEBoXnYgHQnQy3mm0fSg53PazgSopWb-
LamVecmHDrS0tyLgzMbgCCtgYkuOp6udRm8ql2XbbggDfBUtIQz5D86wOYLG32lLk262PuD
u_AmE2ypMr; PP_TOS_ACK=2

HTTP/1.1 204 No Content
Content-Length: 0
Content-Type: text/html
Date: Mon, 20 Feb 2012 08:35:40 GMT
Server: GFE/2.0

http://www.gstatic.com/m/images/gray_dot.png

```
GET /m/images/gray_dot.png HTTP/1.1
Host: www.gstatic.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X;
en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341
Safari/528.16
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.google.com/
```

```
HTTP/1.1 200 OK
Content-Type: image/png
Last-Modified: Wed, 28 Sep 2011 03:00:23 GMT
Date: Fri, 17 Feb 2012 21:05:42 GMT
Expires: Sat, 16 Feb 2013 21:05:42 GMT
X-Content-Type-Options: nosniff
Server: sffe
Content-Length: 473
X-XSS-Protection: 1; mode=block
Cache-Control: public, no-transform, max-age=31536000
Age: 214198
```

Transaction 7:

http://ssl.gstatic.com/m/og/resources/resources_vl6_s2.js

```
GET /m/og/resources/resources_vl6_s2.js HTTP/1.1
Host: ssl.gstatic.com
User-Agent: Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_0 like Mac OS X;
en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7A341
Safari/528.16
Accept: /*/*
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.google.com/
```

```
HTTP/1.1 200 OK
Vary: Accept-Encoding
Content-Encoding: gzip
Content-Type: text/javascript
Last-Modified: Thu, 02 Feb 2012 18:53:53 GMT
Date: Fri, 17 Feb 2012 21:05:43 GMT
Expires: Sat, 16 Feb 2013 21:05:43 GMT
X-Content-Type-Options: nosniff
Server: sffe
Content-Length: 120277
X-XSS-Protection: 1; mode=block
Cache-Control: public, max-age=31536000
Age: 214198
```

[2 pts] What transactions involve a "redirect" and what is the redirect target?

Answer: Transactions 1 (Location: header), target:
<http://www.google.com>

[2 pts] What compression is the browser supporting?

Answer: **gzip, deflate**

[2 pts] What response headers are used to help caching images?

Answer: **Last-Modified, Expires, Cache-Control and Age**

[2 pts] Is any content delivered in compressed form and if yes, in what transactions and what is the name of the compressed object?

Answer: **The HTML in Transaction 2, the JavaScript csmWpFDHhv8.js in Transaction 4, the HTML in Transaction 5, the JavaScript resources_vl6_s2.js in Transaction 7**

[2 pts] What Document (MIME) types are returned by the servers?

Answer 1: **HTML, IMAGE, JavaScript**

Answer 2: **"text/html, image/png, and image/png".**

[2 pts] How many web servers are involved in these transactions and what are their names?

Answer: **3 servers: gws, sffe, GFE/2.0**

[2 pts] Are all connections "persistent"?

Answer: **Yes, "Connection: keep-alive" starting at Transaction 1**

[2 pts] Some transactions are returning "301 Moved Permanently". What does that mean?

Answer: **The page has been moved, resulting in a "location" redirect.**

[2 pts] What character sets are used in these transactions and for what type of content?

Answer: **UTF-8. HTML in Transaction 1, 2, 5 and JavaScript in Transaction 4**

[2 pts] What MIME type(s) does the browser support?

Answer: **text/html, application/xhtml+xml, application/xml, image/png, image/*, text/javascript**

CSS QUESTIONS [10 PTS]

Below are lines extracted from the CSS style sheet of cbsnews.com. For each line answer the question. Each question is worth 2 points.

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

```
.contentWrap #contentMain .centerColumn
```

```
{width:380px;
float:left;
margin:0;}
```

A1.

```
<div class="contentWrap">
  <strong id="contentMain">
    <h1 class="centerColumn"> This is centered</h1>
  </strong>
</div>
```

Q2. What does this declaration do?

```
.isGeneric .contentWrap{margin:20px 20px 0;}
```

A2. Declares two classes that, when BOTH applied, reset the margins.

Q3. Give one (1) HTML example of usage of the declaration below:

```
a img,:link img,:visited img{border:0;}
```

A3.

```
<a href="http://mycompany.com">
  <img src=http://anyimage.png>Image </img>
</a>
```

Q4. Give an HTML example usage of the declaration below, with 4 nested elements:

```
.showNav ul {
  height:16px;
  padding:5px 0 0;
  float:left;
  width:620px;
  margin:0 20px 0 0;
}

.showNav ul li {
  display:block;
  float:left;
  padding: 1px 8px 0 8px;
}

.showNav ul li a:hover{color:#202022;}
```

A4.

```
<div class="showNav">
  <ul>
    <li>
      <a href="abc.html">Some navigation</a>
    </li>
  </ul>
</div>
```

Q5. Create a generic CSS class named nfl-logo that sets the background image to the url <http://www.nfl.com/images/nfl-logo-large.png>, the position in pixels to (-100, 0) and does not repeat it.

A5.

```
.nfl-logo {
  background-image: url(http://www.nfl.com/images/nfl-
logo-large.png);
  background-position: -100px 0;
  background-repeat: no-repeat
}
```

WEB SERVER/HTTP QUESTIONS [20 PTS]

Below is an actual httpd.conf file. Answer the questions that follow. Each question is worth 2 points.

```
#
ServerType standalone
ServerRoot "/etc/httpd"
PidFile /var/run/httpd.pid
ResourceConfig /dev/null
AccessConfig /dev/null
Timeout 300
KeepAlive On
MaxKeepAliveRequests 0
KeepAliveTimeout 15
MinSpareServers 16
MaxSpareServers 64
StartServers 16
MaxClients 512
MaxRequestsPerChild 100000

Port 80

<IfDefine SSL>
Listen 80
Listen 443
```

```

</IfDefine>

User www
Group www
ServerAdmin admin@openna.com
ServerName www.openna.com
DocumentRoot "/home/httpd/ona"

<Directory />
Options None
AllowOverride None
Order deny,allow
Deny from all
</Directory>

<Directory "/home/httpd/ona">
Options None
AllowOverride None
Order allow,deny
Allow from all
</Directory>

<Files .pl>
Options None
AllowOverride None
Order deny,allow
Deny from all
</Files>

<IfModule mod_dir.c>
DirectoryIndex index.htm index.html index.php index.php3
default.html
</IfModule>

#<IfModule mod_include.c>
#Include conf/mmap.conf
#</IfModule>

<IfModule mod_mime.c>
TypesConfig /etc/httpd/conf/mime.types
</IfModule>

DefaultType text/plain
HostnameLookups Off

ErrorLog /var/log/httpd/error_log
LogLevel warn
LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-
Agent}i\"" combined
SetEnvIf Request_URI \.gif$ gif-image
CustomLog /var/log/httpd/access_log combined env=!gif-image
ServerSignature Off
LoadModule php5_module modules/libphp5.so
<FilesMatch "\.ph(p[2-6]?|tml)$">
    SetHandler application/x-httpd-php
</FilesMatch>

```

```

<IfModule mod_alias.c>
ScriptAlias /cgi-bin/ "/home/httpd/cgi-bin/"
<Directory "/home/httpd/cgi-bin">
AllowOverride None
Options None
Order allow,deny
Allow from all
</Directory>
</IfModule>

<IfModule mod_mime.c>
AddEncoding x-compress Z
AddEncoding x-gzip gz tgz

AddType application/x-tar .tgz
</IfModule>

ErrorDocument 500 "The server made a boo boo."
ErrorDocument 404 http://192.168.1.1/error.htm
ErrorDocument 403 "Access Forbidden -- Go away."

<IfModule mod_setenvif.c>
BrowserMatch "Mozilla/2" nokeepalive
BrowserMatch "MSIE 4\.0b2;" nokeepalive downgrade-1.0 force-
response-1.0
BrowserMatch "RealPlayer 4\.0" force-response-1.0
BrowserMatch "Java/1\.0" force-response-1.0
BrowserMatch "JDK/1\.0" force-response-1.0
</IfModule>

#
<IfDefine SSL>
AddType application/x-x509-ca-cert .crt
AddType application/x-pkcs7-crl .crl
</IfDefine>

<IfModule mod_ssl.c>
SSLPassPhraseDialog builtin
SSLSessionCache dbm:/var/run/ssl_scache
SSLSessionCacheTimeout 300

SSLLog /var/log/httpd/ssl_engine_log
SSLLogLevel warn
</IfModule>

<IfDefine SSL>
<VirtualHost _default_:443>

DocumentRoot "/home/httpd/ona"
ServerName www.openna.com
ServerAdmin admin@openna.com
ErrorLog /var/log/httpd/error_log

</VirtualHost>
</IfDefine>

```

Q1. What is the root directory of the server?

`/etc/httpd`

Q2. What is the root directory for web pages?

`/home/httpd/ona`

Q3. What is the URL of the home page?

<http://www.openna.com/>

Q4. What is the name of the home page?

`index.htm, index.html, index.php, index.php3, or default.html`

Q5. What is the location of the error log file?

`/var/log/httpd/error_log`

Q6. If a web page is not found by the server, what page is returned?

`error.htm`

Q7. What is the purpose of the first line of the file?

`a blank comment`

Q8. Does this server support secure communication and where in the configuration file?

`Yes, supports SSL on port 443, using the last 20 lines of configuration`

Q9. Does this server support compression and where in the configuration file?

`Yes, supports compress and gzip, the two AddEncoding lines`

Q10. Does this server support PHP and where in the configuration file?

`Yes, In the lines using LoadModule and FilesMatch`

JAVASCRIPT / REGULAR EXPRESSIONS QUESTIONS [20 PTS]

Consider the following code that performs password validation. Some of the lines have missing code. Complete the missing code. Each answer is worth 2 points

```
<script type="text/javascript">
```

```
    function checkForm(form)
```

```

{
    if(form.username.value == "") {
        alert("Error: Username cannot be blank!");
        form.username.focus();
        return false;
    }
    re = /^\\w+$/;
    if(!re.test(form.username.value)) {
        alert("Error: Username must contain only letters, numbers
and underscores!");
        form.username.focus();
        return false;
    }

    if(form.pwd1.value != "" && form.pwd1.value ==
form.pwd2.value) {
        if(form.pwd1.value.length < 6) {
            alert("Error: Password must contain at least six
characters!");
            form.pwd1.focus();
            return false;
        }
        if(form.pwd1.value == form.username.value) {
            alert("Error: Password must be different from
Username!");
            form.pwd1.focus();
            return false;
        }
        re = /[0-9]/;
        if(!re.test(form.pwd1.value)) {
            alert("Error: password must contain at least one
number!");
            form.pwd1.focus();
            return false;
        }
        re = /[a-z]/;
        if(!re.test(form.pwd1.value)) {
            alert("Error: password must contain at least one
lowercase letter!");
            form.pwd1.focus();
            return false;
        }
        re = /[A-Z]/;
        if(!re.test(form.pwd1.value)) {
            alert("Error: password must contain at least one
uppercase letter!");
            form.pwd1.focus();

```

```

        return false;
    }
    } else {
        alert("Error: Please check that you've entered and
confirmed your password!");
        form.pwd1.focus();
        return false;
    }

    alert("You entered a valid password: " + form.pwd1.value);
    return true;
}

</script>

<form method="POST" action="..." onsubmit="return
checkForm(this)";>
<p>Username: <input type="text" name="username"></p>
<p>Password: <input type="password" name="pwd1"></p>
<p>Confirm Password: <input type="password" name="pwd2"></p>
<p><input type="submit"></p>
</form>

```

JSON QUESTIONS [10 PTS]

Each question is worth 2 points.

Q1: List 3 properties of JSON

- **Subset of ECMA-232 Third Edition**
- **Language independent**
- **text-based**
- **light-weight**
- **Easy to parse**
- **Not a document format**
- **Not a markup language**
- **Not a serialization format**

Q2. What is a possible drawback of the eval() function?

The eval() technique is subject to security vulnerabilities

Q3. What is the first index in a JSON array?

JSON does not talk about indexing: can be 0 or 1

Q4. JSON Parsers (True / False)

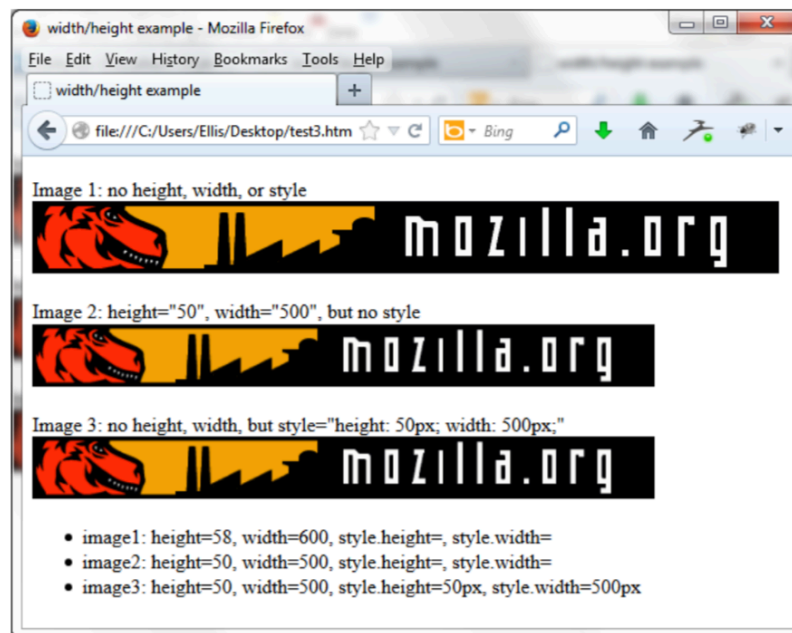
A JSON encoder must only produce well-formed JSON text [X]True []False

Q5. What is JSONP?

"JSON with padding" is a JSON extension wherein the name of a callback function is specified as an input argument of the call itself.

DOM QUESTIONS [10 PTS]

Above is a web page that was produced by the program below. But some of the code is missing. Fill in the missing code. Each correct line is worth 2 points.



```
<!DOCTYPE html>
<html lang="en">
<head>
<title>width/height example</title>
<script>
function init() {
    var arrImages = new Array(3);
    arrImages[0] = document.getElementById("image1");
    arrImages[1] = document.getElementById("image2");
    arrImages[2] = document.getElementById("image3");
    var objOutput = document.getElementById("output");
    var strHtml = "<ul>";

    for (var i = 0; i < arrImages.length; i++) {
```

```

        strHtml += "<li>image" + (i+1) +
            ": height=" + arrImages[i].height +
            ", width=" + arrImages[i].width +
            ", style.height=" + arrImages[i].style.height +
            ", style.width=" + arrImages[i].style.width +
            "<\li>";
    }
    strHtml += "<\ul>";
    objOutput.innerHTML = strHtml;
}
</script>
</head>
<body onload="init();">
<p>Image 1: no height, width, or style
    
</p>
<p>Image 2: height="50", width="500", but no style
    
</p>
<p>Image 3: no height, width, but style="height: 50px;
width: 500px;"
    
</p>
<div id="output"> </div>
</body>
</html>

```