# CS571 Fall 2023: Web Technologies Exam 2 - Results

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#### Attempt 1 of 1

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Attempt Score 87.41 / 100 - 87.41 %

Overall Grade (Highest Attempt) 87.41 / 100 - 87.41 %

## **High-Performance Websites Questions**

Question 1 1.2 / 2 points

The Performance Golden Rule is that 80%-90% is spent on the front-end. Therefore you should start there because \_\_\_\_\_. Select all that apply.

- ➤ ✓ A) ... it is simpler to optimize
- ✓ B) ... it has proven to work
- C) ... it has great potential for improvement
- ✓ D) ... Wilfredo Pareto Principle says so
- E) ... it is much cheaper than changing back end

Question 2 2 / 2 points

[2 Points] What is the most important rule for improving web site performance? Select one answer.

Minify JavaScript

✓ Compress components

Cache every resource

Add Expire headers

Minify CSS

#### Responsive Website Design (RWD) Questions

Question 3 2 / 2 points

[2 points] Consider the following media queries:

```
<link rel="stylesheet" media="only screen and (min-width:320px) and
(max-width: 760px)" href="css1.css">
```

<link rel="stylesheet" media="only screen and (min-width:761px) and
(max-width: 1100px)" href="css2.css">

What different device sizes they fail to support? Select all that apply.

✓ Devices with large screens

✓ Devices with small screens

Question 4 2 / 2 points

[2 points] What are properties of fluid grids? Select all that apply.

Elements will adjust their widths and heights by the specified proportions to their parent container

✓ Have to adjust width manually for certain devices

Defined using relative dimensions

✓ Define grids based on number of rows and columns

Question 5 2 / 2 points

[2 Points] Switching between display x.style.display = "block"; and x.style.display = "none"; may be used in RWD.

- 🗸 🌘 a) True
  - ( ) b) False

Question 6 2 / 2 points

[4 points] Select which concepts are the basis of Responsive Website Design. Select all that apply.

- ✓ fluid grids
- ✓ CSS3 media queries
- ✓ content reduction
- ✓ ✓ flexible images

#### **Cookies and Privacy Questions**

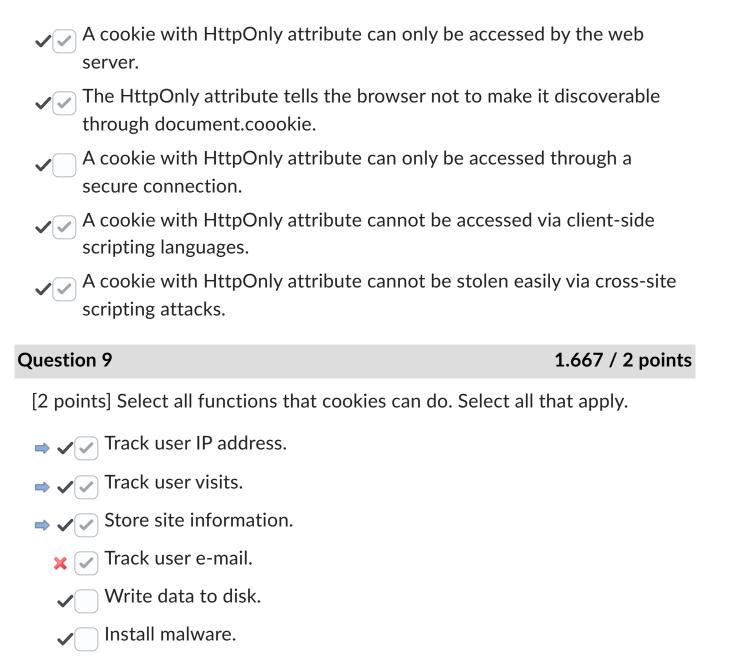
Question 7 1.714 / 2 points

[2 points] Which of the following are different types of cookies? Select all that apply.

- → ✓ ✓ Server-side cookies
  - **✓** Fourth-party cookies
- → ✓ Persistent cookies
- Non-secure cookies
- Non-secure cookies
- Client-side cookies

Question 8 2 / 2 points

[2 points] Select all statements that are <u>true</u> for the **HttpOnly** attribute of cookies. Select all that apply.



### **1St Half Course Questions**

Question 10 2 / 2 points

[2 Points] Consider the following example from w3schools.com.

```
<!DOCTYPE html>
<html>
<body>
<button
onclick="removeHandler()">Try
it</button>
<script>
document.addEventListener("mousemove",
myFunction);
function myFunction() {
document.getElementById("demo").innerHTML
= Math.random();
}
function removeHandler() {
document.removeEventListener("mousemove",
myFunction);
</script>
</body>
</html>
```

What happens when one clicks the "Try it" button?

- **√** Nothing
  - A random number is displayed immediately
  - A random number is displayed every time you move your mouse in this document.

Question 11

[2 Points] What are true statements of HTML "anchors"? Select all that apply.

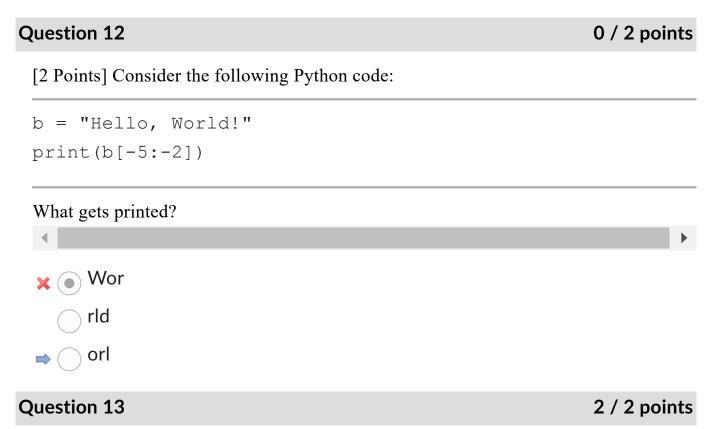
→ ✓ ✓ To create the target for an anchor with fragment, you must use the 'id' attribute

→ ✓ ✓ Fragment identifiers and related IDs must be exactly matched

#### ▼ Hide question 11 feedback

Must be unique within a document

You can have as many anchors in an HTML document, as you wish.



[2 Points] Consider the following example from w3schools.com.

```
<!DOCTYPE html>
<html>
<body>
<script>
const text = '{"name":"John",
"age":"function() {return 30;}",
"city": "New York" } ';
const obj = JSON.parse(text);
obj.age = eval("(" + obj.age +
")");
document.getElementById("demo").innerHTML
= obj.name + ", " + obj.age();
</script>
</body>
</html>
```

What string is displayed in the browser window?

- A) John, function() {return 30;}
- B) <a syntax error>
- ✓ C) John, 30
- **▼** Hide question 13 feedback

See https://www.w3schools.com/js/tryit.asp? filename=tryjson parse function

Question 14 1.5 / 2 points

[2 Points] Select all the JavaScript statements that are syntactically correct.

- → ✓ var multipleValues = [];
- → ✓ var multipleValues = Array();
- → ✓ var multiple Values = Array(5);

Question 15 2 / 2 points

[2 Points] Below are lines extracted from the CSS style sheet of google.com.

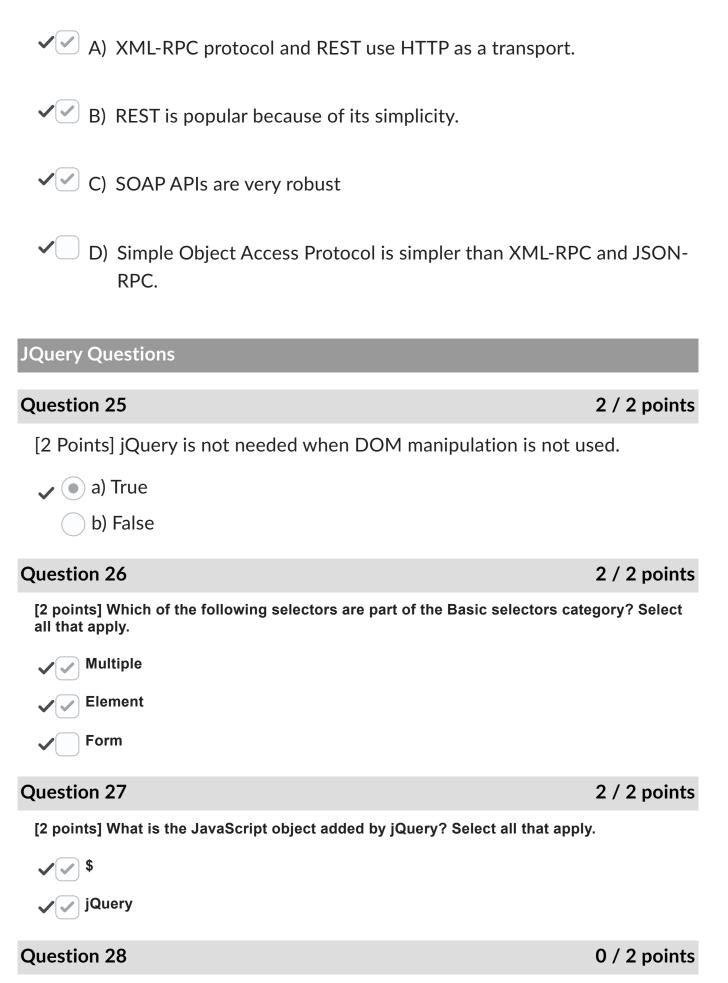
```
.gb_T a {
    border: 1px solid #e5e5e5;
    -webkit-box-shadow: 0 1px 2px rgba(0, 0, 0, 0.1);
    box-shadow: 0 1px 2px rgba(0, 0, 0, 0.1);
    background: #fff;
    cursor: -moz-grabbing;
    cursor: -webkit-grabbing;
    margin: -1px;
    visibility: visible;
    z-index: 1001
}
```

Select any HTML example of usage of the CSS declaration above. Select all the snippet swhere this CSS is triggered.

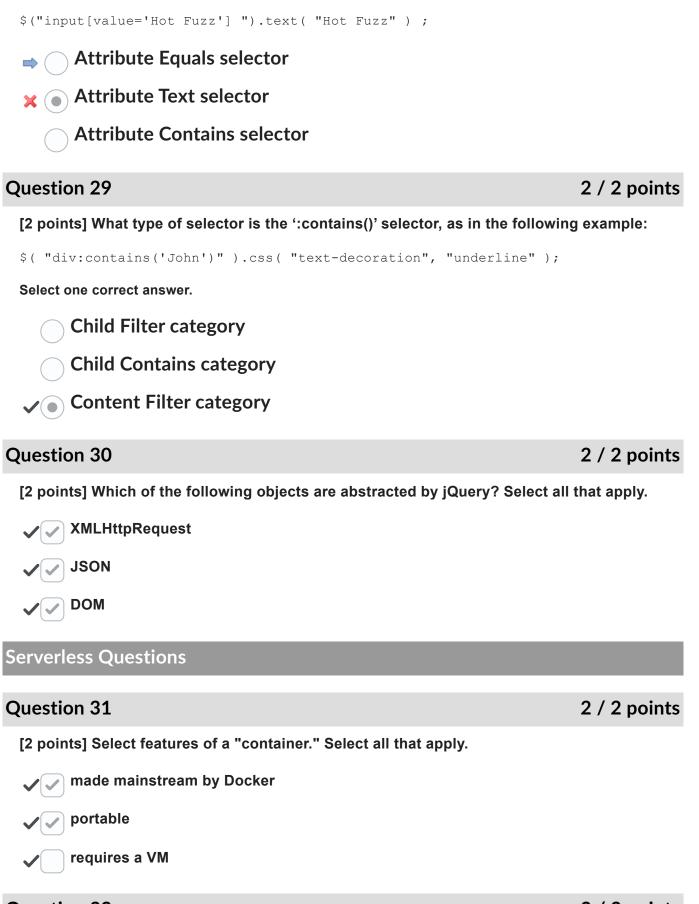
Question 16	0 / 2 points
[2 Points] Where are proxy servers utilized?	
⇒ Both, at the client and server sides.	
At the client side only	
X At the server side only	
REST Questions	
Question 17	1 / 1 point
[1 Point] In REST Web Services, it is best practice to use the slash represent a parent-child relationship.	n "/" to
A) True B) False	
Question 18	1 / 1 point
[1 Point] In REST Web Services, select the best URI.	
A) http://www.boeing.com/airplanes/747	
B) http://www.boeing.com/airplanes/747.html	
Question 19	1 / 1 point
[1 Point] In REST Web Services, select the best URI.	
A) http://www.parts-depot.com/parts?part-id=00345	
✓ R) http://www.narts-denot.com/parts/00345	

Question 20	1 / 1 point
[1 Point] In REST Web Services, POST and PUT may be used for "items.	updating"
✓   A) True	
B) False	
Question 21	1 / 1 point
[1 Point] In REST Web Services, plain text and CSV format may be formatting the responses.	used in
✓ ● A) True	
B) False	
Question 22	0 / 1 point
[1 Point] In REST Web Services, it is best practice to use nouns in URI, not verbs.	the logical
A) True	
×  B) False	
Question 23	2 / 2 points
[2 points] For REST Web Services, select the statements that are <u>TRUE</u> . Selec	t all that apply.
REST services are a W3C recommendation	
REST services are platform independent	
✓ REST services can use HTTPS	
REST services are language dependent	
REST services do not offer security	
Question 24	2 / 2 points

[2 points] When comparing REST with other Web Services approaches, what statements are TRUE? Select all that apply.



[2 points] What type of selector is the name="value" selector, as in the following example:



Question 32 2 / 2 points

[2 Points] Consider the following code snippet.

```
exports.handler = async (event, context) => {
    let body;
    let statusCode = '200';
    const headers = {
        'Content-Type': 'application/json',
    };
    try {
        switch (event.httpMethod) {
            case 'DELETE':
                body = await
dynamo.delete(JSON.parse(event.body)).promise();
                break;
            case 'GET':
                body = await dynamo.scan({ TableName:
event.queryStringParameters.TableName }).promise();
                break;
            case 'POST':
                body = await
dynamo.put(JSON.parse(event.body)).promise();
                break;
            case 'PUT':
                body = await
dynamo.update(JSON.parse(event.body)).promise();
                break;
            default:
                throw new Error (`Unsupported method
"${event.httpMethod}"`);
        }
    } catch (err) {
        statusCode = '400';
        body = err.message;
    } finally {
        body = JSON.stringify(body);
    }
```

```
return {
    statusCode,
    body,
    headers,
};
```

What is it?

- ✓ An AWS Lambda function
  - A Google Cloud Function

Question 33 2 / 2 points

[2 points] Which of the following are properties of a container like Docker? Select all that apply.

- ✓ Containers on same host share single Linux kernel
- ✓ Not portable
- ✓ Container images can be shared

Question 34 2 / 2 points

[2 points] Select which of the following is true of AWS Lambda? Select all that apply.

- ✓ ✓ Adapts to rates of incoming requests
- **✓ V** Functions are unit of deployment
- ✓ Can be triggered by HTTP only

# HTML5 Questions

Question 35 2 / 2 points

[2 Points] Consider the following code from W3Schools.

```
<!DOCTYPE html>
<html>
<body>
```

```
<canvas id="myCanvas" width="300" height="150" style="border:1px</pre>
 solid #d3d3d3;">
 Your browser does not support the HTML5 canvas tag.</canvas>
 <script>
 var c = document.getElementById("myCanvas");
 var ctx = c.getContext("2d");
 ctx.fillRect(20, 20, 150, 100);
 </script>
 </body>
 </html>
 What gets displayed?
       A square filled with black
       A rectangle filled with red
  ✓ A rectangle filled with black
       A square filled with red
Question 36
                                                                  2 / 2 points
 [2 points] Which of the following are removed elements in HTML5? Select all that apply.
       center
       embed
       font
       footer
       frameset
```

### JavaScript Frameworks Questions

Question 37 2 / 2 points

[2 points] Which of the following are true of ReactJS? Select all that apply.



Components are building blocks of React apps

Question 38	2 / 2 points
[2 points] Select which of the following is <u>NOT true</u> of NodeJS.	
handles networking	
is event driven	
✓ uses blocking I/O model	
Question 39	2 / 2 points
[2 points] Which of the following are true of TypeScript? Select all that apply.	
Supports Optionals	
<b>✓</b> Supports MVC	
✓ Includes support for classes and modules	
Question 40	2 / 2 points
[2 points] Select which of the following is <u>true</u> of React. Select all that apply.	
Is a framework like Angular	
<b>✓</b> Does not implement MVC	
Ajax Questions	
Question 41	2 / 2 points
[2 points] Consider the following object:	
<pre>var xhr = new XMLHttpRequest();</pre>	
Which values should be checked in the callback? Select all that apply.	
√ √ xhr.statusText is OK	
√ xhr.status is 404	
xhr.readyState is 4	

2 / 2 points

Question 42

ReactJS can be used to build Android and iOS apps

[2 points] What are some of the characteristics of Ajax applications? Select all that apply.

- ✓ They have static icons
- ✓ ✓ They are single page
- ✓ ✓ They present live content
- ✓ ✓ They have visual effects

Question 43 2 / 2 points

[2 points] Consider the following code from one of the Ajax example shown in class:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN">
<html><head><title>My Third Ajax Script</title>
<script src="script03.js" type="text/javascript"
language="Javascript"></script></head>
<body><div id="pictureBar"> </div></body></html>
```

#### And this JavaScript:

```
window.onload = initAll;
var xhr = false;
function initAll() {    same as previously except it calls getPix }
function getPix() { xhr.open("GET", "flickrfeed.xml", true);
xhr.onreadystatechange = xxxxx1;
xhr.send(null);setTimeout("getPix()",5 * 1000); }
function showPictures() {
    var tempDiv = document.createElement("div");
    var tempDiv2 = document.createElement("div");
    if (xhr.readyState == 4) {
        if (xhr.status == 200) {
        tempDiv.xxxxx2 = xhr.responseText;
        var allLinks = tempDiv.getElementsByTagName("a");
        for (var i=1; i<allLinks.length; i+=2) {</pre>
            tempDiv2.appendChild(allLinks[i].cloneNode(true)); }
        allLinks = tempDiv2.getElementsByTagName("a");
        var randomImg = Math.floor(Math.random() *
allLinks.length);
    document.getElementById("pictureBar").innerHTML =
allLinks[randomImg].innerHTML;
        } else { alert("There was a problem with the request " +
xhr.status); } }
```

What should be the values of the two items listed as XXXXX1 and XXXXX2?

✓ showPictures and innerHTML

callback and loadHTML

Question 44 1 / 1 point

✓ ● True	
False	
Question 45	1 / 1 point
[1 Point] Images do not have cross-domain issues.	
✓ ● A) True	
B) False	
▼ Hide question 45 feedback	
Images are considered "safe" and can be retrieved cross-domain	
Question 46	1 / 1 point
[1 Point] Netscape 7 and Mozilla Firefox 1.0 were the first browse XMLHttpRequest functionality from Internet Explorer.	rs to "clone"
✓ ● A) True	
B) False	
Question 47	1 / 1 point
[1 Point] The XMLHttpRequest object can be used to upload a file.	
✓ ● True	
False	
Question 48	1 / 1 point
[1 Point] The web browser displays a visual progress indicator while the XMLF being processed.	IttpRequest is
True	
✓ ● False	
Question 49	1 / 1 point

[1 Point] Fonts on a web page may be requested across domains using CORS.

F4 = 1 .1	
	During AJAX open(), what does it mean to pass in <false> to the meter and why is it poor practice?</false>
( A)	False means the request will be executed asynchronously. It is bad because it breaks form validation
<b>✓</b> B)	False means the request will be executed synchronously. It is bad because a time-consuming synchronous request on the main thread will degrade UX.
( c)	False means the request will be executed synchronously. It is bad because a time-consuming synchronous request on the main thread will crash the browser.
O D)	False means the request will be executed asynchronously. It is bad because the flow of the application gets disrupted and the order of code execution becomes ambiguous

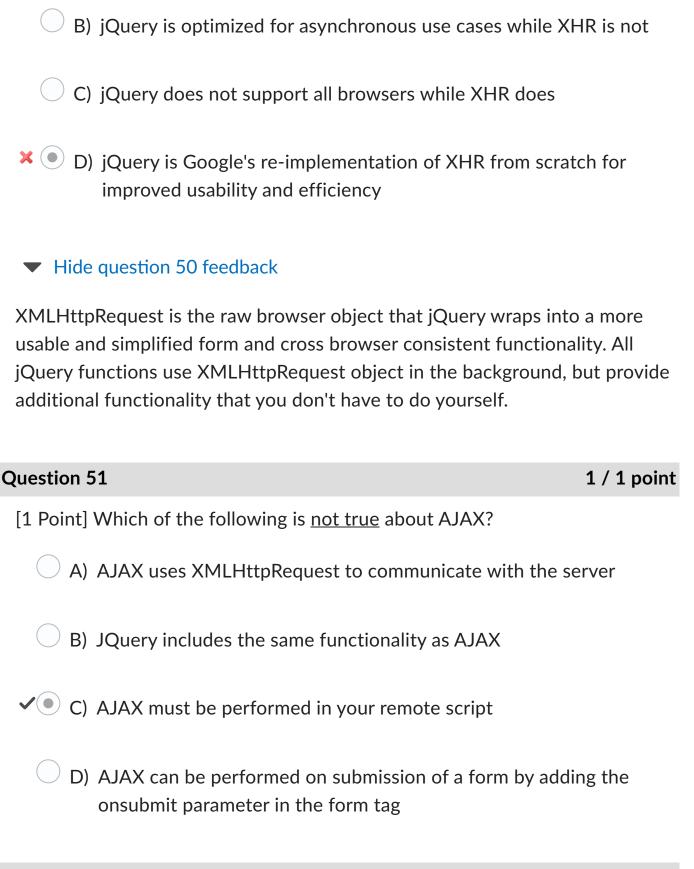
#### ▼ Hide question 49 feedback

False == synchronous. Synchronous requests on the main thread can be easily disruptive to the user experience and should be avoided; in fact, many browsers have deprecated synchronous XHR support on the main thread entirely. Synchronous requests are permitted in Workers.

Question 50 0 / 1 point

[1 Point] What is the major difference between jQuery AJAX and XMLHttpRequest (XHR)?

A) There is no major difference aside from syntactical sugar



Question 52 1 / 1 point

[1 Point] What variable is available to us inside the xhttp.onreadystatechange callback in order to check the state of our request?

A) this.currentState
B) this.currentStatus
✓ C) this.readyState
D) this.state
▼ Hide question 52 feedback
<pre>xhttp.onreadystatechange = function() { if (this.readyState == 4 &amp;&amp; this.status == 200) {   document.getElementById(""demo"").innerHTML =   this.responseText; } };</pre>
Question 53 1 / 1 point
[1 Point] Which of the following methods dispatches the request to the server when using AJAX?
a) if (xhttp.responseText.trim().length > 0) { return false; } return true;
b) open(method, url, async)
✓ c) send();
d) new XMLHttpRequest();

Question 54	0 / 1 point
[1 Point] What is true of the fetch() API?	
→ A) Provides a more powerful and flexible feature set than XMLHttpRequest()	
B) It is identical to jQuery's .ajax()	
C) Unlike jQuery ajax(), cannot set CORS mode	
D) All of the above	
Web Security Questions	
Question 55	1 / 1 point
Combining VPN and TOR makes a user much more easily traceable	2.
A) True	
✓   B) False	
▼ Hide question 55 feedback	
Combining <u>anonymizing VPN + Tor</u> adds an extra layer of encryptic anonymity making it virtually impossible to trace you.	on and
Question 56	1 / 1 point
[2 Points] A DDoS attack occurs when a system is overwhelmed w malicious electronic traffic.	ith
✓      a) True	
( ) b) False	

Question 57	1 / 1 point
[2 Points] The major reason to deprecating V2 Onion Service is expattacks.	posure to
✓      a) True	
b) False	
Question 58	2 / 2 points
[2 points] Which types of hacks can cause <u>damage to the user</u> on the client side that apply.	de? Select all
✓ Log user keystrokes	
✓ Stealing cookies	
✓ Denial of Service	
✓ Install malicious software	
Deface pages, altering content	
Question 59	2 / 2 points
Question 59 [2 points] Which of the following are client-side attacks? Select all that apply.	2 / 2 points
	2 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.	2 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.  Clickjacking	2 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.  Clickjacking  Insufficient Authentication	2 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.  Clickjacking  Insufficient Authentication  Browser and Plugin vulnerability	2 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.  Clickjacking  Insufficient Authentication  Browser and Plugin vulnerability  Cross-site scripting (XSS)  Cross-Site Request Forgery (CSRF)	2 / 2 points 1 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.  Clickjacking  Insufficient Authentication  Browser and Plugin vulnerability  Cross-site scripting (XSS)  Cross-Site Request Forgery (CSRF)	1 / 2 points
[2 points] Which of the following are client-side attacks? Select all that apply.  Clickjacking  Insufficient Authentication  Browser and Plugin vulnerability  Cross-site scripting (XSS)  Cross-Site Request Forgery (CSRF)  Question 60  [2 Points] What are true statements of "Diceware" generated passes	1 / 2 points

- Creates password will low entropy
- ★ Created by rolling a dice 5 times

Done