

Question 1

2 / 2 points

[2 Points] Consider the following HTML:

```
<HTML><HEAD>This is Text placed between <ODDTAG> HEAD markers .</HEAD></HTML>
```

Text placed between HEAD markers is not normally displayed, but in the case above it is displayed, and the <ODDTAG> is ignored and does not appear on the web page.

✓ a) True

b) False

Question 2

1 / 2 points

[2 Points] When using Universal Resource Identifiers (URIs) in HTML to reference other HTML pages at different web sites, what are the required components of the URIs? Please select all that apply.

➡ scheme

➡ host name

Question 3

2 / 2 points

[2 Points] In HTML, what does “deprecated” mean? Select all that apply.

✓ It denotes an ATTRIBUTE that has been outdated by newer constructs

✓ It may no longer be supported by future version of browsers

Question 4

2 / 2 points

[2 Points] Consider the following HTML code sample

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

</body>
</html>
```

What is displayed on the web page, if the image `img type.jpg` does not exist?

- Nothing
 - Girl with a jacket

Question 5

2 / 2 points

[2 Points] In HTML, what does “deprecated” mean? Select all that apply.

- ✓ it denotes an ELEMENT that has been outdated by newer constructs
 - ✓ It is no longer recommended

CSS Questions

Question 6

1 / 1 point

[1 Point] CSS is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.

- A) True
 B) False

Question 7

1 / 1 point

[1 Point] Consider the following CSS.

```
.contentWrap #contentMain .centerColumn  
{  
width:380px;  
float:left;  
margin:0; }
```

and the following HTML:

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

Will the CSS modify the property of the text "This is centered"? Answer True=Yes, No=False

- True
 - False

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

```
<!DOCTYPE html>
<html>
<head>
<style>
p.center {
    text-align: center;
    color: red;
}
p.large {
    font-size: 300%;
}
</style>
</head>
<body>

<h1 class="center">This is heading 1.</h1>
<p class="center">This is paragraph 1.</p>
<p class="center large">This is paragraph 2.</p>

</body>
</html>
```

Select all the actual behaviors of this code. Select all that apply.

- paragraph 1* will be red and center-aligned
 - heading 1* will be centered
 - heading 1* is not affected by listed the CSS style
 - paragraph 2* will be red, center-aligned, and in a large font-size

Question 9

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 where this CSS is triggered.

- <div class="gb_T">
 <a href=http://www.example.com</div>
 - <div class="gb_T">
 href=http://www.example.com</div>
 - example
 -
 <a href=http://www.example.com

Question 10

2 / 2 points

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

```
<!DOCTYPE html>

<html>
<head>
<style>
* {
    text-align: center;
    color: blue;
}
</style>
</head>
<body>

<h1>Hello world!</h1>

<p>It's happening</p>
<p id="para1">Me too!</p>
<p>Not me!</p>

</body>
</html>
```

Select all the actual behaviors of this code. Select all that apply.

- ✓ "Hello World!" is blue
 - ✓ "Me too!" is flush left
 - ✓ "Not me!" is black
 - ✓ "It's happening" is center

Question 11

2 / 2 points

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

```
<!DOCTYPE html>

<html>
<head>
<style>
p:first-child i {
    color: blue;
}
</style>
</head>
<body>

<p>I am a <i>strong</i> person. I am a <i>happy</i> person.</p>
<p>I am a <i>handsome</i> person. I am a <i>student</i> person.</p>

</body>
</html>
```

Select all the actual behaviors of this code. Select all that apply.

- ✓ *happy* is colored blue
 - ✓ *student* is colored blue
 - ✓ *handsome* is colored blue
 - ✓ *strong* is colored blue

HTML DOM Questions

Question 12

2 / 2 points

[2 Points] Select all true properties of the DOM. Select all that apply.

- ✓ The DOM represents an HTML file as a tree
 - ✓ The DOM is a programming interface
 - ✓ The DOM is language independent
 - ✓ The DOM is OS independent

Question 13

0 / 2 points

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

```
<!DOCTYPE html>

<html>

<body>

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

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

<script>
document.addEventListener("mousemove", myFunction);

function myFunction() {
    document.getElementById("demo").innerHTML = Math.random();
}

```

Question 13

0 / 2 points

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

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

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

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

<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?

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

Question 14

0 / 2 points

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

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

<p>This is a p element</p>
<p>This is also a p element.</p>
<p>This is also a p element.</p>
<button onclick="myFunction () ">Try it</button>

<script>
function myFunction() {
    var x = document.getElementsByTagName ("P");
    var i;
    for (i = 0; i < x.length-1; i++) {
        x[i].style.backgroundColor = "red";
    }
}
</script>
</body>
</html>
```

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

- ➡ changes the background color of the first 2 P elements in this document

-   changes the background color of all 3 P elements in this document

- changes the background color of the last 2 P elements in this document

Question 1

2 / 2 points

Question 15

2 / 2 points

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

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

<p>Click the button to create a Text Node.</p>

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

<script>
function myFunction() {
    var t = document.createTextNode("Hello World")
    document.body.appendChild(t);
}
</script>

</body>
</html>
```

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

- Hello World is printed above the Try It button
 - Hello World is printed below the Try It button
 - Hello World is printed next to the Try It button

Question 16

2 / 2 points

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

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

Question 16

2 / 2 points

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

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

<p>This example uses the addEventListener() method to attach a click event to the document.</p>

<p>Click anywhere in the document.</p>

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

<script>
document.addEventListener("click", function() {
  document.getElementById("demo").innerHTML = "Hello World!";
});
</script>

</body>
</html>
```

What happens when one clicks TWICE anywhere in the document

- ✓ "Hello World!" is printed below the Note

- Nothing

- "Hello World!" is printed above the Note

Question 17

1 / 1 point

Question 17

1 / 1 point

[1 Point] What are required components of a web URL?

- A) protocol, host, port
 - B) protocol, host, port, path, query
 - C) protocol, host
 - D) protocol, host, port, path

► [View question 17 feedback](#)

Question 18

1 / 1 point

[1 Point] What is the purpose of the IFRAME element?

- A) embed a site
 - B) hyperlink to a site
 - C) reserve a rectangular region
 - D) embed a plug-in

▼ Hide question 18 feedback



Question 19

1 / 1 point

[1 Point] The DOM is available in Java and JavaScript implementations.

- True
 - False

Question 20

1 / 1 point

[1 Point] In HTML, which element do we use to create an ordered list?

- <ordered_list>
 -
 -
 -

► View question 20 feedback

JSON Questions

Question 21

2 / 2 points

[2 Points] Which of the following are true statements for JSON? Select all that apply.

-   **text-based**

Question 22

1.5 / 2 points

[2 Points] Which of the following are true statements for JSON? Select all that apply.

- ✓ Not a markup language
 - ✓ JSON is language independent
 - ✓ JSON is used to send data between computers
 - ✗ ✓ A document format

► [View question 22 feedback](#)

Question 23

2 / 2 points

[2 Points] Select all statements that are TRUE regarding JSON vs. XML. Select all that apply.

- Both JSON and XML are hierarchical (values within values)
 - Both JSON and XML can be fetched with an XMLHttpRequest
 - XML can be parsed and used by lots of programming languages but JSON has parsing limitations
 - Both JSON and XML are "self describing" (human readable)

Question 24

2 / 2 points

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

```
<!DOCTYPE html>
```

Question 24

2 / 2 points

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

```
<!DOCTYPE html>

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

<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?

- name, age
 - name: John, age: 30
 - John, 30

Question 25

0.667 / 1 point

[1 Point] JSON is better than XML because ... Select all that apply

Question 25

0.667 / 1 point

[1 Point] JSON is better than XML because ... Select all that apply.

- ➡ ✓ A) JSON is parsed into a ready-to-use JavaScript object.
- ✓ B) JSON is longer
- ➡ ✗ C) XML is much more difficult to parse than JSON.

Question 26

1 / 1 point

[1 Point] A JSON encoder must only produce well-formed JSON text.

- ✓ True
- False

Question 27

0.75 / 1 point

[1 Point] JSON is like XML because ... Select all that apply.

- ✓ A) Both require similar bandwidth
- ➡ ✓ B) Both JSON and XML are hierarchical (values within values)
- ✓ C) Both use end tags
- ➡ ✗ D) Both JSON and XML are "self describing" (human readable)

[1 Point] JSON values can be one of the following data types. Select all that apply.

- ✓ A) *undefined*

- ✓ B) a boolean

- ✓ C) nil

- D) a number

► View question 28 feedback

Question 29

1 / 1 point

[1 Point] The <SCRIPT> tag "src" attribute, referring to a JSON or JavaScript program, has cross-domain restrictions of the JavaScript sandbox.

- A) True
 - B) False

► View question 29 feedback

Question 30

0.75 / 1 point

[1 Point] JSON is like XML because ... Select all that apply

- A) Both can be parsed by an XML parser
 - B) Both JSON and XML can be parsed and used by lots of programming languages
 - C) Both can be parsed by a standard JavaScript function
 - D) Both JSON and XML can be fetched with an XMLHttpRequest

HTTP Questions

Question 31

2 / 2 points

[2 Points] What are the main mechanisms by which a client makes a request to a server?

GET and POST

POST

GET

Question 32

1.333 / 2 points

[2 Points] Which of the following are valid values of the Accept-Encoding header? Select all that apply.

zlib

→ gzip

→ deflate

Question 33

1 / 2 points

[2 Points] Which of the following are valid values of the Accept-Encoding header? Select all that apply.

→ compress

→ br

Question 34

2 / 2 points

[2 Points] What is a big difference between HTTP/1 and HTTP/1.1?

HTTP 1.1 uses less memory

Question 34

2 / 2 points

[2 Points] What is a big difference between HTTP/1 and HTTP/1.1?

- HTTP 1.1 uses less memory
- HTTP 1.1 enables persistent connections
- HTTP 1.1 is faster
- HTTP 1.1 is a W3C recommendation

Question 35

2 / 2 points

[2 Points] Who decides when to use compression in an HTTP transaction?

- web server
- negotiated by client and server
- client (browser)

Question 36

1 / 1 point

[1 Point] The "keep-alive" feature / HTTP header is the same as "persistent connections."

- A) True
- B) False

Question 37

1 / 1 point

[1 Point] HTTP Strict-Transport-Security (HSTS) is a security feature that disallows insecure communication.

- A) True
- B) False

Networking Questions

Question 38

2 / 2 points

[2 Points] What is TRUE of DHCP (Dynamic Host Control Protocol)? Select all that apply.

- Automatically assigns private IP addresses when a device joins a network
 - Cannot assign other network configuration, other than IP addresses
 - It is normally built into a router
 - Can assign both private and public IP addresses

Question 39

2 / 2 points

[2 Points] What's the purpose of NAT (network address translation)?

- It connects the port number to the DNS server
 - It determines the IPv4 address class
 - It solves the problem that IPv6 has run out of available addresses
 - It replaces the private IP address with the public IP address on outgoing request

 [View question 39 feedback](#)

Question 40

2 / 2 points

[2 Points] What type of address is 79.125.0.0?

[2 Points] What type of address is 79.125.0.0?

Class A, Public

Class A, Private

Class B, Public

Class B, Private

▷ [View question 40 feedback](#)

Question 41

0 / 2 points

[2 Points] Given an IP address of 150.215.17.9 and a Subnet Mask of 255.255.240.0, what is the address of the Subnet?

150.215.17.9

255.255.257.9

→ 150.215.16.0

150.215.240.0

▼ [Hide question 41 feedback](#)

The subnet mask is the network address plus the bits reserved for identifying the subnetwork -- by convention, the bits for the network address are all set to 1, though it would also work if the bits were set exactly as in the network address.

In this case, therefore, the subnet mask would be

11111111.11111111.11110000.00000000.

It's called a mask because it can be used to identify the subnet to which an IP address belongs by performing a bitwise AND operation on the mask and the IP address. The result is the address of the subnetwork.

Question 42

2 / 2 points

[2 Points] TCP is _____

- A connection-oriented protocol
- a connectionless protocol
- good for scenarios where you don't need every packet to arrive at the destination
- the best communication protocol for all modern applications

▷ [View question 42 feedback](#)

Python Questions

Question 43

1 / 1 point

[1 Point] Which of the following is true in Python? Select all that apply.

- Python is object-oriented
- Python is Interpreted
- Python does not have dynamic typing

▷ [View question 43 feedback](#)

Question 44

0 / 1 point

[2 Points] Lists are unordered collection of one or more data items, not necessarily of same type, enclosed by square brackets.

- A) True
- B) False

Question 45

1 / 1 point

[Point] Which of the following is true in Python? Select all that apply.

- ✓ Constants are part of the Python specification
- ✓ Python local variables are restricted to a function or class

Question 46

0.75 / 1 point

[1 Point] Which of the following is TRUE for Python "dictionaries"? Select all that apply.

- ⇒ ✓ A) Dictionaries are used to store data values in key:value pairs
- ✗ B) Duplicate dictionary items are allowed
- ⇒ ✓ C) A dictionary is a collection which is *changeable*
- ⇒ ✓ D) Dictionary items can be removed after the dictionary has been created

▷ [View question 46 feedback](#)

Question 47

1 / 1 point

[1 Point] Which of the following is TRUE in Python? Select all that apply.

- ✓ A) Python works on different platforms (Windows, Mac, Linux, Raspberry Pi, etc).
- ✓ B) Python runs on an interpreter system. This means that prototyping can be very quick.
- ✓ C) Python can be treated in a procedural way but not in an object-oriented way or a functional way.
- ✓ D) Python has syntax that allows developers to write programs with fewer lines than some other programming languages.
- ✓ E) Python has a simple syntax similar to the English language.

Question 48

0.25 / 1 point

[1 Point] Which of the following is TRUE for Python "tuples"? Select all that apply.

- A) Tuple items cannot have the same value
- B) Tuple items are indexed, the first item has index [1]
- C) The order of tuple items will not change
- D) We cannot change, add or remove items after the tuple has been created

▷ [View question 48 feedback](#)

Question 49

2 / 2 points

[2 Points] Consider the following Python code:

```
>>> cubes = [1, 8, 27, 65, 125]
>>> 4 ** 3
64
>>> cubes[3] = 64
>>> cubes
```

What gets printed?

- [1, 8, 27, 64, 65, 125]
- [1, 8, 64, 65, 125]
- [1, 8, 27, 64, 125]

Question 50

2 / 2 points

Question 50

2 / 2 points

[2 Points] Consider the following Python code:

```
x = "awesome"

def myfunc():
    global x
    x = "fantastic"

myfunc()

print("Python is " + x)
```

What gets printed?

- Python is awesome
- Python is fantastic

Question 51

2 / 2 points

[2 Points] Consider the following Python code:

```
thislist = ["apple", "banana", "cherry", "orange", "kiwi", "melon", "mango"]
print(thislist[2:5])
```

What gets printed?

- A) ['cherry', 'orange', 'kiwi']
- B) ['banana', 'cherry', 'orange']
- C) ['cherry', 'orange', 'kiwi', 'melon']

▶ [View question 51 feedback](#)

Question 52

2 / 2 points

[2 Points] Consider the following Python code:

```
x = ["apple", "banana", "cherry"]

#display x:
print(x)

#display the data type of x:
print(type(x))
```

What gets printed?

- ['apple', 'banana', 'cherry']
<class 'tuple'>
 - ['apple', 'banana', 'cherry']
<class 'set'>
 - ['apple', 'banana', 'cherry']
<class 'list'>

Question 53

2 / 2 points

[2 Points] Consider the following Python code:

```
thisset = {"apple", "banana", "cherry", "apple"}  
print(thisset)
```

What gets printed?

- A) {'banana', 'cherry', 'apple'}

B) {'apple', 'banana', 'cherry', 'apple'}

JavaScript / RegEx Questions

Question 54

2 / 2 points

[2 Points] Consider the following regular expression:

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

What will the third pattern ([a-zA-Z]{2,3}) match?

- 5 alphabetic upper/lower case
- one or more alphabetic upper/lower case
- 2 or 3 alphabetic upper/lower case

Question 55

2 / 2 points

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

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

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

<script>
let str = "Apple, Banana, Kiwi";
document.getElementById("demo").innerHTML = str.slice(7,13);
</script>

</body>
</html>
```

What output will be displayed on the page?

- A) , Banan

Question 55

2 / 2 points

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

```
<!DOCTYPE html>

<html>
<body>

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

<script>
let str = "Apple, Banana, Kiwi";
document.getElementById("demo").innerHTML = str.slice(7,13);
</script>

</body>
</html>
```

What output will be displayed on the page?

- A) , Banan
 - B) Banana
 - C) Nothing
 - D) anana,

 [View question 55 feedback](#)

Question 56

2 / 2 points

[2 Points] Consider the following regular expression in JavaScript:

```
var pattern = /^[0-9]{3}[-]?[0-9]{2}[-]?[0-9]{4}$/;
```

Question 56

2 / 2 points

[2 Points] Consider the following regular expression in JavaScript

```
var pattern = /^[0-9]{3}[-]?[0-9]{2}[-]?[0-9]{4}$/;
```

Select the correct description from the various options below

- Anchored at the beginning and at the end the pattern matches: 3 digits, an optional hyphen, two digits, an optional hyphen, followed by 4 digits, followed by a dollar sign
 - Anchored at the beginning and at the end the pattern matches: 3 digits, an optional hyphen, two digits, an optional hyphen, followed by 4 digits
 - Anchored at the beginning and at the end the pattern matches: 3 digits, an hyphen, two digits, an hyphen, followed by 4 digits

Question 57

2 / 2 points

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

```
<!DOCTYPE html>

<html>
<body>

<h2>My First Web Page</h2>
<p>My first paragraph.</p>

<button type="button" onclick="document.write(5 + 6)">Try it</button>

</body>
</html>
```

What output will be displayed on the page after clicking the Try it button?

Question 57

2 / 2 points

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

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

<h2>My First Web Page</h2>
<p>My first paragraph.</p>

<button type="button" onclick="document.write(5 + 6)">Try it</button>

</body>
</html>
```

What output will be displayed on the page after clicking the Try it button?

- A) My First Web Page, My first paragraph, Try it button
- B) Nothing, the screen is blank
- C) My First Web Page, My first paragraph, Try it button, 11
- D) 11

▷ [View question 57 feedback](#)

Question 58

2 / 2 points

[2 Points] Consider the following regular expression:

pattern = “^(\w+)@([\u00e1-\u00f4\u00c1-\u00d1\u00c3-\u00d3]+)\.([\u00e1-\u00f4\u00c1-\u00d1\u00c3-\u00d3]{2,3})\$”;

Question 58

2 / 2 points

[2 Points] Consider the following regular expression:

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

- one of more alphanumeric or underscore
 - one or more alphabetic upper/lower case or underscore
 - zero or more alphabetic upper/lower case or underscore2

Question 59

2 / 2 points

[2 Points] Consider the following program:

```
alert( "123".match( /\d/g ) )
```

- ✓ 1.2.3

Question 60

2 / 2 points

[2 Points] reverse(), join() and sort() are methods of the array and string objects

- True
 - False