Soen287 review finals - study material

Web Programming (Concordia University)

40. Which JavaScript operator is used to determine the type of a variable?

A. typeof
B. TypeOf
C. typeOf
D. sizeof

Answer: A) typeof

Explanation:

The `typeof` operator is used to determine the type of a variable.

17) Which of the following CSS property is used to specify the space between every letter inside an element?

a. alpha-spacing

b. character-spacing

c. letter-spacing

d. alphabet-spacing

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Answer: (c) letter-spacing

16) Which of the following is used to specify the subscript of text using CSS?

    a. vertical-align: sub

    b. vertical-align: super

    c. vertical-align: subscript

    d. None of the above

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Answer: (a) vertical-align : sub

18) The CSS property used to specify whether the text is written in the horizontal or vertical direction?

    a. writing-mode

    b. text-indent

    c. word-break

    d. None of the above

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Answer: (a) writing-mode

19) Which of the following syntax is correct in CSS to make each word of a sentence start with a capital letter?

    a. text-style : capital;

    b. transform : capitalize;

    c. text-transform : capital;

    d. text-transform : capitalize;

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Answer: (d) text-transform : capitalize;

22) Which of the following is the correct syntax to select the p siblings of a div element?

    a. p

    b. div + p

    c. div p

    d. div ~ p

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Answer: (d) div ~ p

25) Which of the following is not a value of the font-variant property in CSS?

    a. normal

    b. small-caps

    c. large-caps

    d. inherit

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Answer: (c) large-caps

26) Which of the following CSS property is used to specify whether the table cells share the common or separate border?

    a. border-collapse

    b. border-radius

    c. border-spacing

    d. None of the above

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Answer: (a) border-collapse

28) The CSS property used to set the distance between the borders of the adjacent cells in the table is -

    a. border-collapse

    b. border-radius

    c. border-spacing

    d. None of the above

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Answer: (c) border-spacing

29) Which of the following selector in CSS is used to select the elements that do not match the selectors?

    a. :! selector

    b. :not selector

    c. :empty selector

    d. None of the above

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Answer: (b) :not selector

30) Which of the following is not a type of combinator?

    a. >

    b. ~

    c. +

    d. *

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Answer: (d) *

Explanation: CSS Combinators clarifies the relationship between two selectors. There are four types of combinators in CSS that are listed as follows:

- General sibling selector (~)
- Adjacent sibling selector (+)
- Child selector (>)
- Descendant selector (space)

31) Which of the following CSS property defines how an image or video fits into container with established height and width?

    a. object-fit

    b. object-position

    c. position

    d. None of the above

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Answer: (a) object-fit

35) Which if the following CSS function allows us to perform calculations?

    a. calc() function

    b. calculator() function

    c. calculate() function

    d. cal() function

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Answer: (a) calc() function

Explanation: The calc() is an inbuilt CSS function that allows us to perform the calculations. It can be used to calculate length, percentage, time, number, integer frequency, or angle. It uses the four simple arithmetic operators add (+), multiply (*), subtract (-), and divide (/).

50) The correct syntax to give a line over text is -

    a. text-decoration: line-through

    b. text-decoration: none

    c. text-decoration: overline

    d. text-decoration: underline

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Answer: (c) text-decoration: overline

12. From the given options which is/are the valid way to represent a color?

    A. A valid color name like "blue"
    B. HEX code like "#0000ff"
    C. RGB Value like "rgb(0,0,255)
    D. All of the above

Answer: D) All of the above

Explanation:

All of the given options are valid to define/represent the color name.

13. Which property is used to define the font of the element's text?

    A. font
    B. font-family
    C. font-style
    D. All of the above

Answer: B) font-family

15. What are the valid values of font-style property?

A. italic, bold, bolder
B. normal, bold, italic
C. underline, bold, italic
D. inherit, italic, normal, oblique

Answer: D) inherit, italic, normal, oblique

Explanation:

The following are the valid values of the font-style property,

- inherit
- italic
- normal
- oblique

16. Why font-weight property is used?

A. Sets how thick or thin characters in text should be displayed.
B. Sets the size of the font
C. Both A. and B.
D. None of the above

Answer: A) Sets how thick or thin characters in text should be displayed

17. What is/are the correct value(s) of font-weight property?

A. bold, italic, underline
B. normal, bold, italic
C. normal, bold, bolder, lighter, initial, and inherit
D. None of the above

C

19. What is the correct syntax of border property in CSS?

A. border: border-width border-style border-color
B. border: border-color border-width border-style
C. border: border-style border-width border-color
D. All of the above

Answer: A) border: border-width border-style border-color

23. If you want to use a green dotted border around an image, which CSS property is used for that?

A. border-style
B. border-color
C. border-decoration
D. Both A. and B.

Answer: D) Both A. and B.

25. What are the valid values of text-align property?

A. left, middle, right
B. left, center, right
C. left, center, right, justify
D. left, middle, right, justify

Answer: C) left, center, right, justify

11. The tag which allows you to nest other HTML tags within the description

a) <CAPTION>
b) <TD>
c) <TR>
d) None of the above

26. What is the use of "text-align:justify" in CSS?

A. Stretches the lines so that each line has equal width
B. Stretches the lines so that each line can be arranged in left alignment
C. Stretches the lines so that each line can be arranged in right alignment
D. None of the above

Answer: A) Stretches the lines so that each line has equal width

29. Which CSS property is used to specify the space between lines?

A. line-space
B. line-spacing
C. line-padding
D. line-height

Answer: D) line-height

35. What are the valid values of "text-decoration" property?

A. overline, line-through, underline, and none
B. overline, strike, line-through, underline, and none
C. double-line, overline, line-through, underline, and none
D. None of these

Answer: A) overline, line-through, underline, and none

37. Which CSS property sets the vertical alignment of an element?

A. vertical-align
B. vertical-text-align
C. text-valign
D. vertical-align-text

Answer: A) vertical-align

38. What are the valid values of vertical-align property?

  A. baseline, text-top, text-bottom, subscript, and superscript
  B. baseline, top, bottom, sub, and super
  C. baseline, text-top, text-bottom, sub, and super
  D. base, text-top, text-bottom, sub, and super

Answer: C) baseline, text-top, text-bottom, sub, and super

41. Which is the correct CSS statement is used to remove the markers/bullets?

  A. list-style: none;
  B. list-style-type: 0;
  C. list-style-type: blank;
  D. list-style-type: none;

Answer: D) list-style-type: none;

JavaScript

- Originally developed by Branden Eich (Netscape), as LiveScript
- Became a joint venture of Netscape and Sun in 1995, renamed JavaScript
- Standardized by the European Computer Manufacturers Association as ECMA-262 (also ISO 16262)
  - Thus JavaScript also called ECMAScript (ES)
- The Original JavaScript ES1 ES2 ES3 (1997-1999)
- The First Main Revision ES5 (2009)

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

<h1>JavaScript Strings</h1>
<h2>The match() Method</h2>

<p>Perform a global search for "ain":</p>

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

<script>
let text = "The rain in SPAIN stays mainly in the plain";
const myArr = text.match(/ain/g);
document.getElementById("demo").innerHTML = myArr.length + " " + myArr;
</script>

</body>
</html>
```

JavaScript Strings

The match() Method

Perform a global search for "ain":

3 ain,ain,ain

Case	Value	Try
2 < 12	true	Try it »
2 < "12"	true	Try it »
2 < "John"	false	Try it »
2 > "John"	false	Try it »
2 == "John"	false	Try it »
"2" < "12"	false	Try it »
"2" > "12"	true	Try it »
"2" == "12"	false	Try it »

200 Series	400 Series	500 Series
200 OK: The request was successful, and the server has returned the requested data.	**400 Bad Request:** The server cannot process the request due to a client error	**500 Internal Server Error:** The server encountered a situation it doesn't know how to handle (generic error).
201 Created: The request was successful, and a new resource has been created as a result.	**401 Unauthorized:** The client must authenticate itself to get the requested response	**502 Bad Gateway:** received an invalid response
	403 Forbidden: The client does not have permission to access the requested resource.	**503 Service Unavailable:** The server is currently unable to handle the request due to maintenance or overload.
	404 Not Found: The requested resource could not be found on the server.	**504 Gateway Timeout**

- ▸ Express Middleware for Form Data:
    - ▸ express.**urlencoded**(): Middleware for parsing form data with 'Content-Type: application/x-www-form-urlencoded'.
    - ▸ express.**json**(): Middleware for parsing JSON data with 'Content-Type: application/json'.

```javascript
// Middleware to parse form data
app.use(express.urlencoded({ extended: false }));
app.use(express.json());
```

```javascript
const fruits = ["Apple", "Banana", "Orange"];
for (x of fruits) {
  console.log(x);
}
```

40. Which JavaScript operator is used to determine the type of a variable?

A. typeof
B. TypeOf
C. typeOf
D. sizeof

Answer: A) typeof

Explanation:

The `typeof` operator is used to determine the type of a variable.

54. What will be the output of the following JavaScript code?

Copy

```
<script>
        let str1 = new String("IncludeHelp!");
        let str2 = new String("IncludeHelp!");
        document.getElementById("test").innerHTML = (str1==str2);
</script>
```

A. true
B. false
C. True
D. False

Answer: B) false

Explanation:

In the above code, `str1` and `str2` are the objects. And. In the JavaScript, comparison of two objects returns `false` .

56. What will be the output of the following JavaScript code?

Copy

```
<script>
    let x = "Hello, IncludeHelp!";
    document.getElementById("test").innerHTML = x.slice(-13,-1);
</script>
```

A. IncludeHelp!

B. IncludeHelp

C. ValueError

D. Hello,

Answer: B) IncludeHelp

Explanation:

The negative value counts from the end of the string. Thus, the output will be **"IncludeHelp"**.

61. What will be the output of the following JavaScript code?

Copy

```
<script>
    let cars = ['Honda', 'Hyundai'];
    cars.push('Mahindra');
    document.write(typeof cars + " " + cars);
</script>
```

A. array Honda,Hyundai,Mahindra

B. string Honda,Hyundai,Mahindra

C. object Honda,Hyundai,Mahindra

D. object "Honda", "Hyundai", "Mahindra"

Answer: C) object "Honda", "Hyundai", "Mahindra"

Explanation:

The `push()` method pushes an element at the end of the array. And, `typeof` returns the type of the object. Here, `cars` is an array.

83. What will be the output of the following JavaScript code?

```
<script>
    let x = 10;

    document.write(x, " , ", toString(x));
</script>
```

A. 10 , 10
B. 10 , undefined
C. 10 , [object Undefined]
D. None of the above

Answer: C) 10 , [object Undefined]

Explanation:

In the above JavaScript code, the statement `toString(x)` will not convert number to string because `toString()` is not a global method, it is a Number method and the correct way is to call this function is `x.toString()`.

/^Lee/   vs.   /[^Lee]/

```
<form id = "form1">
  <input type = "button"  id = "myButton"
        onclick = "alert('you clicked my button');" />
</form>
```

> or   onclick = "myButtonHandler();"

○ Method2: assign handler to property

```
<form id = "form1">
  <input type = "button"  id = "myButton"/>
</form>
…
function myButtonHandler(){
            alert("You clicked my button!!");
}
document.getElementById("myButton").onclick =
   myButtonHandler;
```

Example on var's global and function scope:

```
var scope = "global scope";
function checkscope(){
    var scope = "local scope";
    function nested() {
        var scope = "nested scope";
        alert("1-" + scope); //prints, what?
    }
    nested();
    scope = "local scope";
    for (var i =0; i < 10; i++){
        var scope = "nested scope";
    }
    alert("2-" + scope);
}

checkscope();
alert("3-"+scope);
```

→SHOW scope1.html and display   8

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

<script>
myFunction();
document.getElementById("demo").innerHTML = a * a;

function myFunction() {
  a = 4;
}
</script>

</body>
</html>
```

The child selector (>) selects all elements that are the children of a specified element.

```
div > p {
   background-color: yellow;
}
```

```
<div>
  <p>Paragraph 1 in the div.</p>
  <p>Paragraph 2 in the div.</p>
  <section>
    <!-- not Child but Descendant -->
    <p>Paragraph 3 in the div (inside a section
element).</p>
  </section>
  <p>Paragraph 4 in the div.</p>
</div>
```

Adjacent Sibling Selector (+)

select an element that is directly after another specific element.

```css
div + p {
   background-color: yellow;
}
```

```html
<div>
   <p>Paragraph 1 in the div.</p>
   <p>Paragraph 2 in the div.</p>
</div>

<p>Paragraph 3. After a div.</p>
<p>Paragraph 4. After a div.</p>
```

```css
div ~ p {
   background-color: yellow;
}
```

```html
<p>Paragraph 1.</p>

<div>
   <p>Paragraph 2.</p>
</div>

<section> <p>Paragraph 3.</p> </section>
<code>Some code.</code>
<p>Paragraph 4.</p>
```

CSS background - Shorthand property

To shorten the code, it is also possible to specify all the background properties i[n]
is called a shorthand property.

Instead of writing:

```css
body {
    background-color: #ffffff;
    background-image: url("img_tree.png");
    background-repeat: no-repeat;
    background-position: right top;
}
```

```javascript
  const sum = numbers.reduce((acc, curr) => acc
+ parseFloat(curr), 0);
  return sum;
}
function getDigits(str) {
  const regex = /\d/g;
  const digits = str.match(regex);
  const result = digits ? digits.join('') : '';
  return result;
}
function reverseString(str) {
  const reversed = str.split('').reverse().join
('');
  return reversed;
}
function getCurrentDate() {
  const options = {
    weekday: 'long',
    year: 'numeric',
    month: 'short',
    day: 'numeric'
  };
  const date = new Date();
  const dateString = date.toLocaleDateString
('en-US', options);
  return dateString;
}
```

My JavaScript Functions

Function A

The sum of [2, 4, 6, 8, 10] is: 30

Function B

The max number of [10, 30, 3, 85, 45] is: 85

Function C

The sum of [4, 5, "3.0 birds", true, "birds2"] is: 12

Function D

The digits in "12mans34sf5" are: 12345

Function E

The reverse of "See you later" is: !retal uoy eeS

Function F

The current date is: *Monday, Aug 14, 2023*

```
var text ="testing: 1, 2, 3";// Sample text
var pattern =/\d+/g// Matches all instances of one or more digits
```

Which one of the following statement is most suitable to check if the pattern matches with the sting "text".

    a. test(text)

    b. equals(pattern)

    c. test(pattern)

    d. text==pattern

👁 Hide Answer   📝 Workspace

```
vararr=[4,3,2,1];
var rev=arr.reverse();
document.writeln(rev);
```

    a. 1, 2, 3,4

    b. 4, 3, 2, 1

    c. 3

    d. 1

👁 Hide Answer   📝 Workspace

87) Which one of the following options is the correct output for the given code of javascript?

```
var values=[4,5,6,7]
varans=values.slice(1);
document.writeln(ans);
```

a. Error

b. 5, 6, 7

c. 4, 5, 6,

d. 4, 5, 6, 7

👁 **Hide Answer**   📝 **Workspace**

94) What will happen if we execute the following piece of code?

```
<script>

var arr=[4,3,,1];
  for(i=0;i<4;i++){
document.writeln(arr[i]);
}
</script>
```

a. The output will be 4 3 1

b. The output will be 4 3 undefined 1

c. It will result in an error

d. It does not run at all