

L1

1) What will be the output of the following code?

```
1. if (function f()){}) {
2.     alert(typeof f);
3. }
```

- ☐ undefined
- ☒ function
- ☐ null
- ☐ object
- ☐ there is an error in the code

Alshayn

L1 - 10.5
L2 - 24
L3 - 0

34.5

2) What will be the result of this example?

```
function f() {
    let a = 5;
    return new Function('b', 'return a + b');
}
```

```
alert( f()(1) );
```

- ☐ 1
- ☒ 6
- ☐ undefined
- ☐ NaN
- ☐ there will be an error

3) What will be the output of the following code?

```
let y = 1;
let x = y = 2;
```

```
alert(x);
```

- ☐ 1
- ☒ 2
- ☐ NaN
- ☐ undefined
- ☐ the error will occur

4) What the alert will output?

```
alert(str); // ?  
var str = "Hello";
```

- ☐ Hello
- ☒ undefined
- ☐ there will be an error

5) Attentively look at the code syntax. What will be the output?

```
let f = function(x) {  
  alert(x)  
}
```

```
(function() {  
  f(1)  
})();
```

- ☐ no result
- ☒ output 1
- ☐ output undefined
- ☐ there will be an error

6) Under what condition `elem.scrollHeight == elem.clientHeight`?

- ☐ element content completely scrolled down
- ☐ page is scrolled so that element is fully visible and is in the border of the window
- ☒ the element height is equal to scroll bar height
- ☐ element context is completely visible, has no scroll
- ☐ the element has no padding

7) How can we get full height of block DOM-element, if it has border and padding?

- ☐ `parseInt(elem.style.width)`
- ☒ `parseInt(getComputedStyle(elem).width)`
- ☐ `elem.offsetWidth`
- ☐ `elem.clientWidth`

8) Here is the button `<button id="elem"></button>`, how can we show the string "`<hello>`"?

The result has to be like this:

```
<!--+ run -->
```

```
<button id="elem">&lt;hello&gt;</button>
```

- ☐ `elem.innerHTML = "<hello>"`
- ☐ `elem.innerText = "<hello>"`
- ☒ `elem.textContent = "<hello>"`
- ☐ `elem.setText("<hello>")`.

9) Link `` has event listener:

```
link.addEventListener('click', function(event) {  
    // ...
```

```
});
```

What the code event listener should consist to prevent redirection on click?
If several of the listed above are suitable, select several

- ☐ `event.stopPropagation()`
- ☐ `event.stopImmediatePropagation()`
- ☒ `event.preventDefault()`
- ☐ `return false`
- ☐ `event.cancel()`

10) How can we get Dom-element form in the document?

```
<!DOCTYPE HTML>
```

```
<html>
```

```
<body>
```

```
    <form name="myform">...</form>
```

```
</body>
```

```
</html>
```

- ☐ `document.forms.myform`
- ☐ `document.getElementById("myform")`
- ☒ `document.body.children[0]`
- ☒ `document.body.firstChild`
- ☒ `document.forms[0]`

11) Calling `setInterval(func, 100)` calls func...

- ☐ exactly every 100ms.
- ☒ approximately every 100ms.
- ☐ usually every 100ms, but possibly calls will happen much less often

12) This code will not output anything?

```
document.onclick = function(event) {  
    alert(event.type);  
};
```

```
document.body.dispatchEvent(new CustomEvent('click'));
```

- ☐ you are not allowed to generate built-in events in JavaScript
- ☐ listener through on-property does not work for event generated from JavaScript
- ☒ built-in event has to be generated otherwise, constructor `CustomEvent` should be replaced with something
- ☐ when generating event it is not specified that it should bubble
- ☐ OMG, what is it?

13) Here is the link:

```
<a href="http://site.com">Link text</a>
```

document has listener:

```
document.onclick = function(e) { e.preventDefault(); };
```

Will the pass on link happen?

- ☐ yes
- ☒ no
- ☐ depends on position of stars at the click moment

14) How many children will <div> have after the code below?

```
<div id="div">text</div>
```

```
<script>
```

```
  div.insertAdjacentHTML('afterBegin', '<p>Hello</p>');
```

```
  div.insertAdjacentHTML('beforeEnd', '<p>Hello</p>');
```

```
</script>
```

- ☐ 0
- ☐ 1
- ☐ 2
- ☒ 3
- ☐ the error will occur

15) In which cases for element elem is true elem.firstChild == elem.lastChild?

- ☐ when elem has no children
- ☒ when elem is the only one descendant
- ☐ when elem has one two or more descendants

16) Which events from the list will occur when you press and release the 'space' button?
Another buttons are not clickable.

- ☒ keydown
- ☒ keyup
- ☒ keypress
- ☐ no one will occur

17) What is the right way to output greeting in 5 seconds?

- ☐ sleep(5); alert("Hello!");
- ☐ sleep(5000); alert("Hello!");
- ☒ setTimeout(function() {alert("Hello!");}, 5000);
- ☐ setTimeout(function() {alert("Hello!");}, 5);

18) How can we get the indent size margin-top of <div>?

- ☒ `div.style.marginTop`
- ☒ `div.style["margin-top"]`
- ☐ `getComputedStyle(div, "margin").top`
- ☒ `getComputedStyle(div).marginTop`
- ☐ `getComputedStyle(div).margin.top`

19) Can the script connect another outer js-files to the page while it is working?

- ☐ yes, but only once
- ☒ yes, but only before the page is completely loaded
- ☐ yes, as many files are needed and whenever it needed

20) There is an element `<div id="elem"><input/></div>`. It has two handlers:

```
elem.addEventListener("click", handler1, false);  
elem.addEventListener("click", handler2, true);
```

Which of them will work earlier while clicking <input>?

- ☒ the first
- ☐ the second
- ☐ no one
- ☐ the standard does not specify the exact sequence

21) How many children (DOM-elements) has element in the example below:

```
<ul>  
  <li>Hello</li>  
  <li>World</li>  
</ul>
```

- ☐ 1
- ☒ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6

L2

22) What would the following lines of code output to the console?

```
function parent() {  
  var hoisted = "I'm a variable";  
  function hoisted() {  
    return "I'm a function";  
  }  
  return hoisted();  
}  
console.log(parent());
```

I'm a function

23) What will the code print?

```
function foo() {  
  function bar() {  
    return 3;  
  }  
  return bar();  
  function bar() {  
    return 8;  
  }  
}  
console.log(foo());
```

8

24) What will the following code output to the console:

```
var a = 1;
```

```
function b() {
```

```
  a = 10;
```

```
  return;
```

```
  function a() {}
```

```
}
```

```
b();
```

```
console.log(a);
```

10

25) What will the code print?

```
alert(foo());
```

```
function foo() {
```

```
  var bar = function() {
```

```
    return 3;
```

```
  };
```

```
  return bar();
```

```
  var bar = function() {
```

```
    return 8;
```

```
  };
```

```
}
```

3

26) Consider the code snippet below. What will the console output be?

```
var myVar = 'foo';
```

```
(function() {
```

```
  console.log('Original value was: ' + myVar);
```

```
  var myVar = 'bar';
```

```
  console.log('New value is: ' + myVar);
```

```
})();
```

Original value was : foo
New value is : bar

27) What will the code below output to the console?

```
var myObject = {  
  foo: "bar",  
  func: function() {  
    var self = this;  
    console.log("outer func: this.foo = " + this.foo); bar  
    console.log("outer func: self.foo = " + self.foo); bar  
    (function() {  
      console.log("outer func: this.foo = " + this.foo); undefined  
      console.log("outer func: self.foo = " + self.foo); bar  
    })();  
  }  
};  
myobject.func();
```

28) What will the code below output?

```
console.log(0.1 + 0.2); 0.3  
console.log(0.1 + 0.2 == 0.3); false
```

29) In what order will the numbers 1-4 be logged to the console when the code below is executed?

```
(function() {  
  console.log(1);  
  setTimeout(function(){console.log(2)}, 1000);  
  setTimeout(function(){console.log(3)}, 0);  
  console.log(4);  
})();
```

*1
4
3
2*

30) Assuming d is an "empty" object in scope, say:

```
var d = {};  
...what is d array?
```

```
['zebra', 'horse'].forEach(function(k) {  
  d[k] = undefined;  
});
```

d = { 'zebra': undefined, 'horse': undefined }

31) What will the code below output to the console?

```
var arr1 = "john".split(''); ['j', 'o', 'h', 'n']  
var arr2 = arr1.reverse(); ['n', 'o', 'h', 'j']  
var arr3 = "jones".split(''); ['j', 'o', 'n', 'e', 's']  
arr2.push(arr3);  
console.log("array 1: length = " + arr1.length + " last = " + arr1.slice(-1));  
console.log("array 2: length = " + arr2.length + " last = " + arr1.slice(-1));
```

array 1: length = 4 last = 3

array 2: length = 5 last = 3

32) What will the code below output of the following code:

```
for (var i = 0; i < 5; i++) {  
  setTimeout(function() {console.log(i); }, i * 1000);  
}
```

*5
5
5
5
5*

33) What would the following lines of code output to the console?

```
console.log("0 || 1 = "+(0 || 1)); true  
console.log("1 || 2 = "+(1 || 2)); true  
console.log("0 && 1 = "+(0 && 1)); false  
console.log("1 && 2 = "+(1 && 2)); true
```

34) What will be the output out of the following code?

```
var a={},  
    b={key: 'b'},  
    c={key: 'c'};
```

```
a[b]=123;
```

```
a[c]=456;
```

```
console.log(a[b]); 123
```

35) What will be the output out of the following code?

```
console.log((function f(n){return (n > 1) ? n * f(n-1) : n})(10));
```

10!

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36) Consider the code snippet below. What will the console output be?

```
(function(x) {  
  return (function(y) {  
    console.log(x);  
  })(2);  
})(1);
```

1

37) What will the following code output to the console:

```
var hero = {  
  _name: 'John Doe',  
  getSecretIdentity: function () {  
    return this._name;  
  }  
};
```

```
var stoleSecretIdentity = hero.getSecretIdentity;
```

```
console.log(getSecretIdentity());
```

```
console.log(hero.getSecretIdentity());
```

~~John Doe~~ Reference error

38) What will be the output of this code?

```
var x = 21;  
var girl = function () {  
  console.log(x);  
  var x = 20;  
};  
girl();
```

undefined

39) What will the code print?

```
for (let i=0; i<5; i++) {  
  setTimeout(function() { console.log(i); }, i* 1000);  
}
```

1
2
3
4
5

40) What do the following lines output?

```
console.log(1 < 2 < 3); true  
console.log(3 > 2 > 1); true
```

41) Imagine you have this code:

```
var a = [1, 2, 3];
```

a) Will this result in a crash?

```
a[10] = 99; Yes
```

b) What will this output?

```
console.log(a[6]); Error
```

42) What would following code return?

```
console.log(typeof typeof 1); Integer
```

L3

43) What values resulting array will consist of?

`[1,2,3,4,5,6].filter((v) => !(v % 2));` `[1,3,5]`

44) What outcome of the following code?

```
let arr = [];  
while (arr.length < 5) {  
  if (arr.length % 2) {  
    arr.push(arr.length * 2);  
  } else {  
    arr.shift(arr.length);  
  }  
}
```

~~`[5, 10, 5, 10, 5]`~~
~~`[0, 2, 4, 3, 6]`~~

45) What will be outputted to console by the following code?

```
const input = [6,3,2,5,1];  
console.log(parseInt(input.reduce(function (mem, val, ind) {return mem[val] =  
ind;}, []))));  $\rightarrow$  1
```

46) What values resulting array will consist of?

`Array.prototype.map.call('Ericsson Project', (v, i) => i).filter((i, v) => v % 2);`

47) What will be outputted to console by the following code?

```
var arr = [];  
while (arr.length < 10) {  
  if (arr.length % 2) {  
    arr.push(arr.length);  
  } else {  
    arr.unshift(arr.length);  
  }  
}  
console.log(arr);
```

~~`[0, 2, 4, 3, 6]`~~

48) What will be outputted to console by the following code?

```
const res = [3,4,7,2,1].reduce(function (mem, val, ind) {return (mem[val] = ind, mem)}), []);  
console.log(parseInt(res));
```

49) What values resulting array will consist of?

```
Array.prototype.map.call('Ericsson Project', (v, i) => i).filter((i, v, a) => (a.length - v) % 2);
```

50) What result output of the following code?

```
'Javascript'.split('a').map(function (v) {  
  if (v.length <= 1) {  
    return v + 'a';  
  }  
}).join('');
```

Javascript

51) What values resulting array will consist of?

```
[18, 3, 15, 4, 3, -3, 1, 0, -5, 8, 13].sort(function (a1, a2) {  
  return Math.abs(a1) < Math.abs(a2) ? 1 : (a1 === a2 ? 0 : -1);  
});
```

0 1 3 3 -3 4 -5 8 13 15 18

52) What will be outputted to console by the following code?

```
const arr = [13, 8, 2, 11, 5, 1, 9, 6, 1, 1],  
  init = Array([5]),  
  result = arr.reduce(function (mem, val, ind) {  
    mem[val] = ind;  
    return mem;  
  }, init);  
console.log(parseInt(result));
```