1. Determine what this Javascript code will print out (without running it): x = 1; var a = 5; var b = 10; var c = function(a, b, c) { var x = 10; document.write(x); document.write(a); var f = function(a, b, c) { b = a; document.write(b); b = c; var x = 5; } f(a,b,c); document.write(b); } c(8,9,10); document.write(b); document.write(x); }

Answer:

10

8

8

9

10

1

2. What is the difference between a method and function?

* method is a part of a class but function can be outside of class.

3. What does 'this' refer to when used in a Java method?

* refer to current class

4. What does 'this' refer to when used in a JavaScript method?

* this refer to global objects

5. What does 'this' refer to when used in a JavaScript constructor function?

* refer to the new instance.

6. Assume object x is the prototype for object y in Javascript. Object x has a method f( ) containing keyword 'this'. When f is called by x.f( ), what does 'this' refer to?

* this refer to y

7. What is a free variable in JavaScript?

a free variable is a variable that is not passed as a parameter in a function and not a global variable or local variable in the current function.

8. Create an object that has properties with name = "fred" and major="music" and a property that is a function that takes 2 numbers and returns the smallest of the two, or the square of the two if they are equal.

var obj = {

'name': "fred",

'major': "music",

'res': (x, y) => {

if (x == y) {

return Math.pow(x, 2);

} else {

return Math.min(x, y)

}

}

}

console.log(obj.res(5, 5))

9. Write Javascript code for creating three Employee objects using the "new" keyword and a constructor function. Employee objects have the following fields: name, salary, position.

var x = function(name, age) {

this.name = name;

this.age = age;

}

var mahmoud = new x("mahmoud", 14)

var abanob = Object.create(mahmoud);

abanob.name = "abanob"

abanob.age = "15"

console.log(abanob.name + "\_" + abanob.age);

10. Write a Javascript function that takes any number of input arguments and returns the product of the arguments.

function product(...more) {

let res = 1;

if (more.length > 0) {

more.forEach(element => {

res \*= element;

});

} else {

res = 0;

}

return res;

}

11. Write an arrow function that returns the maximum of its three input arguments.

console.log(((a, b, c) => {

return Math.max(a, b, c)

})(2, 24, 16));