**Question 1**

x = 1;

var a = 5;

var b = 10;

var c = function(a, b, c) {

var x = 10;

document.write(x);  **x will result to 10;**

document.write(a); **a will result to 8;**

var f = function(a, b, c) {

b = a;

document.write(b);  **b will be equal 8;**

b = c;

var x = 5;

}

f(a,b,c);

document.write(b); **b will be equal 9**

}

c(8,9,10);

document.write(b);  **b will be equal 10**

document.write(x);  **x will be equal 1**

}

**Question 2**

What is the difference between a method and function?

* Methods are actions that can be performed on objects.

A function is a block of code designed to perform a particular task.

**Question 3**

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

* In Java, **this** keyword refers to the current instance object in a method.

**Question 4**

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

* In a method, **this** refers to the owner object.

**Question 5**

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

* In a constructor function, **this** does not have a value. It is a substitute for the new object. The value of **this** will become the new object when a new object is created.

**Question 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 refers to X

**Question 7**

What is a free variable in JavaScript?

* Free variables are variables declared outside of function scope.

**Question 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",**

**func: function(a,b){**

**if(a < b){**

**return a;**

**}**

**else if(a=b){**

**return a\*a;**

**}**

**else{**

**return b;**

**}**

**}**

**}**

**Question 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.

function Employee(name, salary, position) {

this.name = name;

this.salary = salary;

this.position = position;

}

let emp = new Employee("Jane", 2000, "accountant");

let emp2 = new Employee("Joe", 1000, "manager");

let emp3 = new Employee("Doe", 3000, "salesManager");

**Question 10**

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

* function product(x, y, ...more) {

var total = x \* y;

if (more.length > 0) {

for (var i = 0; i < more.length; i++) {

total \*= more[i];

}

}

return total;

}

**Question 11**

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

* var maxOfThree = (a,b,c) =>{

let max = Math.max(a,b);

return Math.max(c,max);

}