

# Client Side Scripting Using JavaScript

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**Que 1: Java script is the most commonly used client-side scripting language. Why?**

**Marks :(2)**

**Ans:**

- \* Java script is supported by all browsers.
- \* It is easy to learn
- \* Event-Based Programming
- \* Platform independence
- \* Easy to debug and test

**Que 2: Mention any two situations in which Java Script is not properly working.**

**Marks :(2)**

**Ans:** \* If the user disables the execution of Java Script in the web page by disabling Java Script engine, script code may not render.

\* If the browser is not supporting Java Script, script may not work.

**Que 3: An HTML page without Java Script code is rendered quickly than that with Java Script code. Justify your answer.**

**Marks :(2)**

**Ans:** The statement is True. If an HTML page contain Java Script browser need a help from script engine to render it. It takes extra time for rendering the page.

**Que 4: Most of the HTML pages received by browsers contain Java script code. Explain how browsers handle this Java Script code?**

**Marks :(2)**

**Ans:** Today every browser has a virtual machine for executing Java Script code called *Script Engine*. When the browser sees a Java Script code, it passed to the script engine for processing. Now script engine interprets the code and result returned to the browser.

**Que 5: Explain with an example the working of *document*. *Write()* method in Java Script.**

**Ans:** This java script command includes a text in the body section of an HTML page. That is *document* represents the body section of a web page.

For example

```
<SCRIPT Language="JavaScript">
    document.write("WELCOME");
</SCRIPT>
```

will display the text WELCOME in the body section of a web page.

**Que 6: What is the main use and benefit of using client-side scripting in web development?**  
**Marks :(2)**

**Ans:** Client-side scripting languages used for validations of data at the client side itself. It reduces network traffic and workload on the server.

**Que 7: Which function is used to find the type of a variable in Java Script? What is an *undefined* data type in Java Script?**  
**Marks :(2)**

**Ans:** \* type of()

\* It is a special data type in Java Script used to represent variables that are not defined by using *var*.

**Que 8: ----- keyword is used to declare a variable in Java Script.**  
**Marks :(1)**

**Ans:** *var*

**Que 9: Differentiate between the values *false* and "*false*" in Java Script.**  
**Marks :(2)**

**Ans:** The value *false* is Boolean value. But the value "*false*" is a string value in Java Script.

**Que 10: Write Java Script code to generate 10 terms of fibonacci sequence.**  
**Marks :(3)**

**Ans:**

```
<html>
<body>
<script type="text/javascript">
var a=0,b=1,c;
document.write("Fibonacci");
while (b<=10)
{
document.write(c);
document.write("<br/>");
c=a+b;
a=b;
b=c;
}
</script>
</body>
</html>
```

**Que 11: Write Java script code to access value in a text box with the help of an example.**  
**Marks :(2)**

**Ans:** If the Name of HTML form is frmSample and the name of text box(<input type="text" Name="txtSample">) is txtSample, then the following code read data from HTML form and store it into a variable named var1.

```
var1 = document.frmSample.txtSample.value;
```

**Que 12: Read the following Java Script code then predict and justify the outputs.**

**Marks :(3)**

```
function fn()
{
    var m, n;
    n = 20;
    document.write(typeof(m));
    document.write("<BR>");
    document.write(typeof(n));
}
```

**Ans:** undefined number

Justification: The type of () function return the data type of an already declared variable. The data type of variable *n* is *number*. But the variable *m* is declared without giving any value. Therefore, Java Script considered it as a special data type *undefined*.

**Que 13: Why web designers choose browser independent coding style?**

**Marks :(2)**

**Ans:** Web pages are to be viewed by a large number of people over the internet, we cannot expect that all the users will use a specific browser itself. Hence, a web page should be made browser independent as much as possible.

**Que 14: Java script follows the same syntax of C++. Justify (Differences and Similarities).**

**Marks :(3)**

**Ans:**

\* Both languages use functions to implement modular programming approach.

Java script function definition:

```
function function_name()
{
    function_body;
}
```

C++ function definition:

```
return_type function_name()
{
    function_body;
}
```

\* Java script functions start with the keyword function and it never return any value. But in C++ before function name we specify its return data type as it return a value.

\* Almost all the control structures, operators, etc. of Java Script are similar to that in C++.  
(if, switch, for loop and while loop)

\* The basic data types in C++ are int, float, char, double and void.

\* The basic data types in Java Script are Number, String, Boolean.

\* Java script use *var* to declare variables.

**Que 15: Classify the following Java Script operators into different operator categories.**

**Marks :(2)**

% = || == --

**Ans:**

% = : Modulus and assignment/ Assignment operator

|| : Logical operator

== : Relational/Comparison/Equal to operator

-- : Arithmetic/Decrement operator

**Que 16: External java script files saved with extension -----.** **Marks :(1)**

**Ans:** ..js

**Que 17: Write any five java script events. When these events occurs? Marks :(5)**

**Ans:**

Event	Description
onClick	Occurs when the user clicks on an object
onMouseEnter	Occurs when the mouse pointer is moved onto an object
onMouseLeave	Occurs when the mouse pointer is moved out of an object
onKeyDown	Occurs when the user is pressing a key on the keyboard
onKeyUp	Occurs when the user releases a key on the keyboard

**Que 18: Write a short note on any three built-in functions in java script. Marks :(3)**

**Ans:** a. alert() function:

This function is used to display a message on the screen.

For example, the statement `alert("Welcome to JavaScript");` will display the following message window on the browser window.

b. isNaN() function:

This function is used to check whether a value is a number or not. In this function, NaN stands for Not a Number. The function returns true if the given value is not a number. For example, the following statements return the value true.

`isNaN("welcome");`

c. charAt():

This function returns the character at a particular position. `charAt(0)` returns the first character in the string. `charAt(1)` returns the second character in the string and so on.

Look at the following example code.

```
var x;
```

```
x = "JavaScript";
```

```
y = x.charAt(4);
```

stores the character S on the variable y.

**Que 19: The main attribute of <SCRIPT> tag is ----- . Marks :(1)**

**Ans:** Language

**Que 20: State and explain different ways to add Java Script to a web page. Marks :(3)**

**Ans:** a) Inside <BODY> tag

b) Inside <HEAD> tag

c) As external Java Script file

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Explanation with example.