Set 1

* **1. What is JavaScript?**

JavaScript is a client-side as well as server side scripting language that can be inserted into HTML pages and is understood by web browsers. JavaScript is also an Object Oriented Programming language.

**2. Enumerate the differences between Java and JavaScript?**

Java is a complete programming language. In contrast, JavaScript is a coded program that can be introduced to HTML pages. These two languages are not at all inter-dependent and are designed for the different intent. Java is an object - oriented programming (OOPS) or structured programming language like C++ or C whereas JavaScript is a client-side scripting language and it is said to be unstructured programming. Both JavaScript and Jscript are almost similar. JavaScript was developed by Netscape. Microsoft reverse engineered Javascript and called it JScript.

**3. What are JavaScript types?**

Following are the JavaScript types:

Number

String

Boolean

Function

Object

Null

Undefined

**4. What is the use of isNaN function?**

isNaN function returns true if the argument is not a number otherwise it is false.

**5. Between JavaScript and an ASP script, which is faster?**

JavaScript is faster. JavaScript is a client-side language and thus it does not need the assistance of the web server to execute. On the other hand, ASP is a server-side language and hence is always slower than JavaScript. Javascript now is also a server side language (nodejs).

**6. What is negative infinity?**

Negative Infinity is a number in JavaScript which can be derived by dividing negative number by zero.

**7. Is it possible to break JavaScript Code into several lines?**

Breaking within a string statement can be done by the use of a backslash, ‘\’, at the end of the first line

Example: Document.write(“This is \a program”);

And if you change to a new line when not within a string statement, then javaScript ignores break in line.

Example:

var x=1, y=2,

z=

x+y;

The above code is perfectly fine, though not advisable as it hampers debugging.

**8. Which company developed JavaScript?**

Netscape is the software company who developed JavaScript.

**Section Two**

**9. What are undeclared and undefined variables?**

Undeclared variables are those that do not exist in a program and are not declared. If the program tries to read the value of an undeclared variable, then a runtime error is encountered. Undefined variables are those that are declared in the program but have not been given any value. If the program tries to read the value of an undefined variable, an undefined value is returned.

**10. Write the code for adding new elements dynamically?**

<html>

<head>

<title>t1</title>

 <script type="text/javascript">

 function addNode() {

var newP = document.createElement("p");

 var textNode = document.createTextNode(" This is a new text node");

newP.appendChild(textNode);

document.getElementById("firstP").appendChild(newP);

}

</script> </head>

<body> <p id="firstP">firstP<p> </body>

</html>

**11. What are global variables? How are these variable declared and what are the**

**problems associated with using them?**

Global variables are those that are available throughout the length of the code, that is, these have no scope. The var keyword is used to declare a local variable or object. If the var keyword is omitted, a global variable is declared.

Example:

// Declare a global globalVariable = "Test";

The problems that are faced by using global variables are the clash of variable names of local and global scope. Also, it is difficult to debug and test the code that relies on global variables.

**12. What is a prompt box?**

A prompt box is a box which allows the user to enter input by providing a text box. Label and box will be provided to enter the text or number.

**13. What is ‘this’ keyword in JavaScript?**

‘**This’** keyword refers to the object from where it was called.

**14. Explain the working of timers in JavaScript? Also elucidate the drawbacks of using the timer, if any?**

Timers are used to execute a piece of code at a set time or also to repeat the code in a given interval of time. This is done by using the functions **setTimeout, setInterval**and **clearInterval**. The**setTimeout(function, delay)**function is used to start a timer that calls a particular function after the mentioned delay. The **setInterval(function, delay)**function is used to repeatedly execute the given function in the mentioned delay and only halts when cancelled. The **clearInterval(id)**function instructs the timer to stop.

Timers are operated within a single thread, and thus events might queue up, waiting to be executed.

**15. Which symbol is used for comments in Javascript?**

// for Single line comments and

/\* Multi Line Comment \*/

**16. What is the difference between ViewState and SessionState?**

‘ViewState’ is specific to a page in a session.

‘SessionState’ is specific to user specific data that can be accessed across all pages in the web application.

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**Topic 3**

**17. What is === operator?**

=== is called as **strict equality operator** which returns true when the two operands are having the same value without any type conversion.

**18. Explain how can you submit a form using JavaScript?**

To submit a form using JavaScript use document.form[0].submit(); document.form[0].submit();

**19. Does JavaScript support automatic type conversion?**

Yes JavaScript does support automatic type conversion, it is the common way of type

conversion used by JavaScript developers.

**20. How can the style/class of an element be changed?**

It can be done in the following way:

document.getElementById(“myText”).style.fontSize = “20?;

or

document.getElementById(“myText”).className = “anyclass”;

**21. Explain how to read and write a file using JavaScript?**

There are two ways to read and write a file using JavaScript

Using JavaScript extensions

Using a web page and Active X objects

**22. What are all the looping structures in JavaScript?**

Following are looping structures in Javascript:

For

While

do-while loops

**23. What is called Variable typing in Javascript?**

Variable typing is used to assign a number to a variable and the same variable can be assigned to a string.

Example

i = 10;

i = "string";

This is called variable typing.

**24. How can you convert the string of any base to integer in JavaScript?**

The parseInt() function is used to convert numbers between different bases. parseInt() takes the string to be converted as its first parameter, and the second parameter is the base of the given string.

In order to convert 4F (of base 16) to integer, the code used will be -parseInt ("4F", 16);

**Topic 4**

**25. Explain the difference between “==” and “===”?**

“==” checks only for equality in value whereas “===” is a stricter equality test and returns false if either the **value or the type** of the two variables are different.

**26. What would be the result of 3+2+"7"?**

Since 3 and 2 are integers, they will be added numerically. And since 7 is a string, its

concatenation will be done. So the result would be 57.

**27. Explain how to detect the operating system on the client machine?**

In order to detect the operating system on the client machine, the navigator.appVersion string (property) should be used.

**28. What do mean by NULL in Javascript?**

The NULL value is used to represent no value or no object. It implies no object or null string, no valid boolean value, no number and no array object.

**29. What is the function of delete operator?**

The functionality of delete operator is used to delete all variables and objects in a program but it cannot delete variables declared with VAR keyword.

**30. What is an undefined value in JavaScript?**

Undefined value means the

Variable used in the code doesn’t exist

Variable is not assigned to any value

Property doesn’t exist

**31. What are all the types of Pop up boxes available in JavaScript?**

Alert

Confirm and

Prompt

**32. What is the use of Void(0)?**

Void(0) is used to prevent the page from refreshing and parameter "zero" is passed while calling. Void(0) is used to call another method without refreshing the page.

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**Topic 5**

**33. How can a page be forced to load another page in JavaScript?**

The following code has to be inserted to achieve the desired effect:

<script language="JavaScript" type="text/javascript" >

<!-- location.href="http://newhost/newpath/newfile.html"; //--></script>

**34. What is the data type of variables of in JavaScript?**

All variables in the JavaScript are object data types.

**35. What is the difference between an alert box and a confirmation box?**

An alert box displays only one button which is the OK button. But a Confirmation box displays two buttons namely OK and cancel.

**36. What are escape characters?**

Escape characters (Backslash) is used when working with special characters like single quotes, double quotes, apostrophes and ampersands. Place backslash before the characters to make it display.

Example:

document.write "I m a "good" boy"

document.write "I m a \"good\" boy"

**37. What are JavaScript Cookies?**

Cookies are the small test files stored in a computer and it gets created when the user visits the websites to store information that they need. Example could be User Name details and shopping cart information from the previous visits.

**38. Explain what is pop()method in JavaScript?**

The pop() method is similar as the shift() method but the difference is that the Shift method works at the start of the array. Also the pop() method take the last element off of the given array and returns it. The array on which is called is then altered.

Example:

var cloths = ["Shirt", "Pant", "TShirt"];

cloths.pop();

//Now cloth becomes Shirt,Pant

**39. Whether JavaScript has concept level scope?**

No. JavaScript does not have concept level scope. The variable declared inside the function has scope inside the function.

**40. Mention what is the disadvantage of using innerHTML in JavaScript?**

If you use innerHTML in JavaScript the disadvantage is

Content is replaced everywhere

We cannot use like “appending to innerHTML”

Even if you use +=like “innerHTML = innerHTML + ‘html’” still the old content is

replaced by html

The entire innerHTML content is re-parsed and build into elements, therefore its much slower

The innerHTML does not provide validation and therefore we can potentially insert valid

and broken HTML in the document and break it

Set2

**41. What is break and continue statements?**

Break statement exits from the current loop.

Continue statement continues with next statement of the loop.

**42. What are the two basic groups of datatypes in JavaScript?**

They are as –

Primitive type

Reference types.

Primitive types are number and Boolean data types. Reference types are more complex types like strings and dates.

**43. How generic objects can be created?**

Generic objects can be created as:

var I = new object();

**44. What is the use of type of operator?**

‘Typeof’ is an operator which is used to **return a string** description of the type of a variable.

**45. Which keywords are used to handle exceptions?**

Try… Catch---finally is used to handle exceptions in the JavaScript

Try{

Code

}

Catch(exp){

Code to throw an exception

}

Finally{

Code runs either it finishes successfully or after catch

}

**46. Which keyword is used to print the text in the screen?**

document.write(“Welcome”) is used to print the text – Welcome in the screen

.

**47. What is the use of blur function?**

Blur function is used to remove the focus from the specified object.

**48. What is variable typing?**

Variable typing is used to assign a number to a variable and then assign string to the same variable. Example is as follows:

i= 8;

i=”john”;

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**Topic 2**

**49. How to find operating system in the client machine using JavaScript?**

The ‘**Navigator.appversion’**is used to find the name of the operating system in the client machine.

**50. What are the different types of errors in JavaScript?**

There are three types of errors:

**Load time errors**: Errors which come up when loading a web page like improper syntax

errors are known as Load time errors and it generates the errors dynamically.

**Run time errors**: Errors that come due to misuse of the command inside the HTML

language.

**Logical Errors**: These are the errors that occur due to the bad logic performed on a

function which is having different operation.

**51. What is the use of Push method in JavaScript?**

The push method is used to add or append one or more elements to the end of an Array. Using this method, we can **append** multiple elements by passing multiple arguments

**52. What is unshift method in JavaScript?**

Unshift method is like push method which works at the beginning of the array. This method is used to **prepend** one or more elements to the beginning of the array.

**53. What is the difference between JavaScript and Jscript?**

Both are almost similar. JavaScript is developed by Netscape and Jscript was developed by Microsoft .

**54. How are object properties assigned?**

Properties are assigned to objects in the following way -

obj["class"] = 12;

or

 obj.class = 12;

**55. What is the ‘Strict’ mode in JavaScript and how can it be enabled?**

Strict Mode adds certain compulsions to JavaScript. Under the strict mode, JavaScript shows errors for a piece of codes, which did not show an error before, but might be problematic and potentially unsafe. Strict mode also solves some mistakes that hamper the JavaScript engines to work efficiently.

Strict mode can be enabled by adding the string literal “use strict” above the file. This can be illustrated by the given example:

function myfunction()

{

“use strict";

var v = “This is a strict mode function";

}

**56. What is the way to get the status of a CheckBox?**

The status can be acquired as follows -

alert(document.getElementById('checkbox1').checked);

If the CheckBox will be checked, this alert will return TRUE.

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Topic 3

**57. How can the OS of the client machine be detected?**

The navigator.appVersion string can be used to detect the operating system on the client machine.

**58. Explain window.onload and onDocumentReady?**

The onload function is not run until all the information on the page is loaded. This leads to a substantial delay before any code is executed.

onDocumentReady loads the code just after the DOM is loaded. This allows early manipulation of the code.

**59. How will you explain closures in JavaScript? When are they used?**

Closure is a locally declared variable related to a function which stays in memory when the function has returned.

For example:

function greet(message) {

console.log(message);

}

function greeter(name, age) {

return name + " says howdy!! He is " + age + " years old";

}

// Generate the message

var message = greeter("James", 23);

// Pass it explicitly to greet

greet(message);

This function can be better represented by using closures

function greeter(name, age) {

var message = name + " says howdy!! He is " + age + " years old";

return function greet() {

console.log(message);

};

}

// Generate the closure

var JamesGreeter = greeter("James", 23);

// Use the closure

JamesGreeter();

**60. How can a value be appended to an array?**

A value can be appended to an array in the given manner -

arr[arr.length] = value;

**61. Explain the for-in loop?**

The for-in loop is used to loop through the properties of an object.

The syntax for the for-in loop is -

for (variable name in object){

statement or block to execute

}

In each repetition, one property from the object is associated to the variable name, and the loop is continued till all the properties of the object are depleted.

**62. Describe the properties of an anonymous function in JavaScript?**

A function that is declared without any named identifier is known as an anonymous function. In general, an anonymous function is inaccessible after its declaration.

Anonymous function declaration -

var anon = function() {

alert('I am anonymous');

 };

 anon();

**63. What is the difference between .call() and .apply()?**

The function .call() and .apply() are very similar in their usage except a little difference. .call() is used when the number of the function’s arguments are known to the programmer, as they have to be mentioned as arguments in the call statement. On the other hand, .apply() is used when the number is not known. The function .apply() expects the argument to be an array.

The basic difference between .call() and .apply() is in the way arguments are passed to the function. Their usage can be illustrated by the given example.

var someObject = {

myProperty : 'Foo',

myMethod : function(prefix, postfix) {

alert(prefix + this.myProperty + postfix);

}

};

someObject.myMethod('<', '>’);  // alerts '<Foo>;'

var someOtherObject= {

myProperty : 'Bar'

};

someObject.myMethod.call(someOtherObject, '<', '>');  // alerts '<Bar>'

someObject.myMethod.apply(someOtherObject, ['<', ‘>']);  // alerts '<Bar>'

**64. Define event bubbling?**

JavaScript allows DOM elements to be nested inside each other. In such a case, if the handler of the child is clicked, the handler of parent will also work as if it were clicked too.

**Topic 4**

**65. Is JavaScript case sensitive? Give an example?**

Yes, JavaScript is case sensitive. For example, a function parseInt is not same as the function Parseint.

**66. What boolean operators can be used in JavaScript?**

The ‘And’ Operator (&&), ‘Or’ Operator (||) and the ‘Not’ Operator (!) can be used in

JavaScript.

\*Operators are without the parenthesis.

**67. How can a particular frame be targeted, from a hyperlink, in JavaScript?**

This can be done by including the name of the required frame in the hyperlink using the ‘target’ attribute.

<a href=”newpage.htm” target=”newframe”>>New Page</a>

**68. What is the role of break and continue statements?**

Break statement is used to come out of the current loop

While the continue statement continues the current loop with a new recurrence.

**69. Write the point of difference between web-garden and a web-farm?**

Both web-garden and web-farm are web hosting systems. The only difference is that web garden is a setup that includes many processors in a single server

While web-farm is a larger setup that uses more than one server.

**70. How are object properties assigned?**

Assigning properties to objects is done in the same way as a value is assigned to a variable.

For example, a form object’s action value is assigned as ‘submit’ in the following manner -

Document.form.action=”submit”

**71. What is the method for reading and writing a file in JavaScript?**

This can be done by Using JavaScript extensions (runs from JavaScript Editor), example for opening of a file -

fh = fopen(getScriptPath(), 0);

**72. How are DOM utilized in JavaScript?**

DOM stands for Document Object Model and is responsible for how various objects in a

document interact with each other. DOM is required for developing web pages, which includes objects like paragraph, links, etc. These objects can be operated to include actions like add or delete. DOM is also required to add extra capabilities to a web page. On top of that, the use of API gives an advantage over other existing models.

**Topic 5**

**73. How are event handlers utilized in JavaScript?**

Events are the actions that result from activities, such as clicking a link or filling a form, by the user. An event handler is required to manage proper execution of all these events. Event handlers are an extra attribute of the object. This attribute includes event’s name and the action taken if the event takes place.

**74. Explain the role of deferred scripts in JavaScript?**

By default, the parsing of the HTML code, during page loading, is paused until the script has not stopped executing. It means, if the server is slow or the script is particularly heavy, then the webpage is displayed with a delay. While using Deferred, scripts delays execution of the script till the time HTML parser is running. This reduces the loading time of web pages and they get displayed faster.

**75. What are the various functional components in JavaScript?**

The different functional components in JavaScript are-

**First-class functions:**Functions in JavaScript are utilized as first class objects. This usually means that these functions can be passed as arguments to other functions, returned as values from other functions, assigned to variables or can also be stored in data structures.

**Nested functions:**The functions, which are defined inside other functions, are called Nested functions. They are called ‘everytime’ the main function is invoked.

**76. Write about the errors shown in JavaScript?**

JavaScript gives a message if it encounters an error. The recognized errors are -

**Load-time errors**: The errors shown at the time of the page loading are counted under

Load-time errors. These errors are encountered by the use of **improper syntax**, and thus

are detected while the page is getting loaded.

**Run-time errors**: This is the error that comes up while the program is running. It is

caused by illegal operations, for example, division of a number by zero, or trying to

access a non-existent area of the memory.

**Logic errors**: It is caused by the use of syntactically correct code, which does not fulfill

The required task. For example, an infinite loop.

**77. What are Screen objects?**

Screen objects are used to read the information from the client’s screen. The properties of screen objects are -

AvalHeight: Gives the height of client’s screen

AvailWidth: Gives the width of client’s screen.

ColorDepth: Gives the bit depth of images on the client’s screen

Height: Gives the total height of the client’s screen, including the taskbar

Width: Gives the total width of the client’s screen, including the taskbar

**78. Explain the unshift() method ?**

This method is functional at the starting of the array, unlike the push(). It adds the desired number of elements to the top of an array. For example -

var name = [ "john" ];

name.unshift( "charlie" );

name.unshift( "joseph", "Jane" );

console.log(name);

The output is shown below:

[" joseph "," Jane ", " charlie ", " john "]

**79. Define unescape() and escape() functions?**

The escape () function is responsible for coding a string so as to make the transfer of the information from one computer to the other, across a network.

For Example:

<script>

 document.write(escape(“Hello? How are you!”));

</script>

Output: Hello%3F%20How%20are%20you%21

The unescape() function is very important as it decodes the coded string.

It works in the following way. For example:

<script>

document.write(unescape(“Hello%3F%20How%20are%20you%21”));

</script>

Output: Hello? How are you!

**80. What are the decodeURI() and encodeURI()?**

EncodeURl() is used to convert URL into their hex coding. And DecodeURI() is used to convert the encoded URL back to normal.

<script>

var uri="my test.asp?name=ståle&car=saab";

document.write(encodeURI(uri)+ "<br>");

document.write(decodeURI(uri));

</script>

Output -

*my%20test.asp?name=st%C3%A5le&car=saab*

*my test.asp?name=ståle&car=saab*

Set3

### Topic 1

**81. Why it is not advised to use innerHTML in JavaScript?**

innerHTML content is refreshed every time and thus is slower. There is no scope for validation in innerHTML and, therefore, it is easier to insert rouge code in the document and, thus, make the web page unstable.

**82. What does the following statement declares?**

var myArray = [[[]]];

It declares a three dimensional array.

**83. How are JavaScript and ECMA Script related?**

ECMA Script are like rules and guideline while Javascript is a scripting language used for web development.

**84. What is namespacing in JavaScript and how is it used?**

Namespacing is used for grouping the desired functions, variables etc. under a unique name. It is a name that has been attached to the desired functions, objects and properties. This improves modularity in the coding and enables code reuse.

**85. How can JavaScript codes be hidden from old browsers that don’t support**

**JavaScript?**

For hiding JavaScript codes from old browsers:

Add “<!–” without the quotes in the code just after the <script> tag.

Add “//–>” without the quotes in the code just before the <script> tag.

Old browsers will now treat this JavaScript code as a long HTML comment. While, a browser that supports JavaScript, will take the “<!–” and “//–>” as one-line comments.

# 86. [What is the real name of JavaScript?](http://interviewquestionanswer.com/javascript-programming/what-is-the-real-name-of-javascript)

JavaScript was originally developed under the name Mocha, and was officially called LiveScript when it first shipped. However, the name was soon changed to JavaScript as a marketing ploy to capitalize on the fame of Java, despite of the fact that it has nothing to do with Java.

# 87. [Is JavaScript case sensitive language?](http://interviewquestionanswer.com/javascript-programming/is-javascript-case-sensitive-language)

Yes, JavaScript is a case sensitive language, which means that language keywords, variables, function names, and any other identifiers must always be typed with a consistent capitalization of letters. For example, the while keyword must be always typed as "while" throughout the code, and not as "While" or "WHILE".

# 88. [How to write a hello world example of JavaScript?](http://interviewquestionanswer.com/javascript-programming/how-to-write-a-hello-world-example-of-javascript)

JavaScript is an interpreted language, which means that there is no need for compilation. The code can be just written and attached to HTML code. Here is an example code for Hello World.

<!DOCTYPE HTML>

<html>

<head>

<title>Hello World</title>

</head>

<body>

<h1>Hello World</h1>

</body>

</html>

# Example:

<script type="text/javascript">

document.write("JavaScript Hello World!");

</script>

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### Topic 2

# 89. [How to use external JavaScript file?](http://interviewquestionanswer.com/javascript-programming/how-to-use-external-javascript-file)

External JavaScript files are files that are saved with a .js extension. These files can be embedded into an html page, hence allowing one to use JavaScript functions on an html page. The benefit of using an external JavaScript file is that it allows code reusability, i.e. one can use the same file, i.e. code in numerous html pages. It is recommended that all JavaScript files be embedded into a single file as this increases the speed of the webpage.

JavaScript files can be used to include both types of scripts, i.e. the ones placed in head (functions), and the ones places in the body, which are the ones that run when the page loads.

One significant condition in using external JavaScript files is that the file should not include the <script> tag. It should only include HTML commenting and JavaScript code.

Example:

<script type="text/javascript" src="message.js"></script>

# 90. [What is BOM?](http://interviewquestionanswer.com/javascript-programming/what-is-bom)

BOM stands for Browser Object Model. It consists of the objects: navigator, history, screen, location and document, all of which are children of window.

The primary function of BOM is to allow JavaScript to "talk to", i.e. communicate with the browser. Basically, it allows one to interact with the browser.

The default object of browser is window. This means that one can call all the functions of the window wither directly, or by specifying window.

For example:

window.alert("hello javatpoint");

would work the same as:

alert("hello javatpoint");

# 

# 91. [What is DOM? What is the use of document object?](http://interviewquestionanswer.com/javascript-programming/what-is-dom-what-is-the-use-of-document-object)

DOM stand for Document Object Model. It primarily deals with the document, as well as the HTML elements themselves, such as document and all traversal that can be done in it, such as events, etc.

It can be said that DOM is a subset of BOM, as each HTML page which is loaded into a browser window becomes a Document object. Also, document object is an object in BOM.

DOM defines the logical structure of documents. It defines how document is accessed and manipulated. DOM can also be used to create and build documents, as well as navigate their structure, and add, modify, or delete elements and content. Nearly anything that can be found in the an HTML or XML document can be accessed, changed, deleted, or added by using DOM.

### 92. What is the use of window object?

### The window object is automatically created by the browser that represents a window of a browser.

### It is used to display the popup dialog box such as alert dialog box, confirm dialog box, input dialog box etc.

### 93. What is the use of history object?

The history object of browser can be used to switch to history pages such as back and forward from current page or another page. There are three methods of history object.

* 1. history.back()
  2. history.forward()
  3. history.go(number): number may be positive for forward, negative for backward.

### 94. How to write comment in JavaScript?

There are two types of comments in JavaScript.

* 1. Single Line Comment: It is represented by // (double forward slash)
  2. Multi Line Comment: It is represented by slash with asterisk symbol as /\* write comment here \*/

### 95. What are the JavaScript data types?

There are two types of data types in JavaScript:

* 1. Primitive Data Types
  2. Non-primitive Data Types

### 96. How to write html code dynamically using JavaScript?

The innerHTML property is used to write the HTML code using JavaScript dynamically. Let's see a simple example:

document.getElementById('mylocation').innerHTML="<h2>This is heading using JavaScript</h2>";

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http://firstenquiry.com/lms/theme/image.php/academi/core/1494956158/spacer

### Topic 3

### 97. How to write normal text code using JavaScript dynamically?

The innerText property is used to write the simple text using JavaScript dynamically. Let's see a simple example:

document.getElementById('mylocation').innerText="This is text using JavaScript";

### 98. How to create objects in JavaScript?

There are 3 ways to create object in JavaScript.

* 1. By object literal
  2. By creating instance of Object
  3. By Object Constructor

Let's see a simple code to create object using object literal.

emp={id:102,name:"Rahul Kumar",salary:50000}

### 99. How to create array in JavaScript?

There are 3 ways to create array in JavaScript.

* 1. By array literal
  2. By creating instance of Array
  3. By using an Array constructor

Let's see a simple code to create array using object literal.

var emp=["Shyam","Vimal","Ratan"];

### 100. What is the output of 10+20+"30" in JavaScript?

3030 because 10+20 will be 30. If there is numeric value before and after +, it is treated is binary + (arithmetic operator).

### 101. What is the output of "10"+20+30 in JavaScript?

102030 because after a string all the + will be treated as string concatenation operator (not binary +).

### 102. Difference between Client side JavaScript and Server side JavaScript?

**Client side JavaScript** comprises the basic language and predefined objects which are relevant to running java script in a browser. The client side JavaScript is embedded directly by in the HTML pages. This script is interpreted by the browser at run time.

**Server side JavaScript** also resembles like client side java script. It has relevant java script which is to run in a server. The server side JavaScript are deployed only after compilation.

### 103. In which location cookies are stored on the hard disk?

The storage of cookies on the hard disk depends on OS and the browser.

The Netscape navigator on Windows uses cookies.txt file that contains all the cookies. The path is : c:\Program Files\Netscape\Users\username\cookies.txt

The Internet Explorer stores the cookies on a file username@website.txt. The path is: c:\Windows\Cookies\username@Website.txt.

### 104. What is the difference between undefined value and null value?

**Undefined value:** A value that is not defined and has no keyword is known as undefined value. For example:

int number;//Here, number has undefined value.

**Null value:** A value that is explicitly specified by the keyword "null" is known as null value. For example:

String str=null;//Here, str has a null value.

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### Topic 4

### 105. How to set the cursor to wait in JavaScript?

The cursor can be set to wait in JavaScript by using the property "cursor". The following example illustrates the usage:

<script>

window.document.body.style.cursor = "wait";

</script>

### 106. What is difference between View state and Session state?

"View state" is specific to a page in a session whereas "Session state" is specific to a user or browser that can be accessed across all pages in the web application.

### 107. What are the pop up boxes available in JavaScript?

Alert Box

Confirm Box

Prompt Box

### 108. How can we detect OS of the client machine using JavaScript?

The **navigator.appVersion** string can be used to detect the operating system on the client machine.

### 109. How to submit a form using JavaScript by clicking a link?

Let's see the JavaScript code to submit form on clicking the link.

<form name="myform" action="index.php">

Search: <input type='text' name='query' **/**>

<a href="javascript: submitform()">Search</a>

</form>

<script type="text/javascript">

function submitform()

{

  document.myform.submit();

}

</script>

### 110. How to change the background color of HTML document using JavaScript?

<script type="text/javascript">

document.body.bgColor="pink";

</script>

### 111. How to validate a form in JavaScript?

<script>

function validateform(){

var name=document.myform.name.value;

var password=document.myform.password.value;

if (name==null || name==""){

  alert("Name can't be blank");

  return false;

}else if(password.length**<6**){

  alert("Password must be at least 6 characters long.");

  return false;

  }

}

</script>

<body>

<form name="myform" method="post" action="abc.jsp" onsubmit="return validateform()" >

Name: <input type="text" name="name"><br/>

Password: <input type="password" name="password"><br/>

<input type="submit" value="register">

</form>

### 112.  How to validate email in JavaScript?

<script>

function validateemail()

{

var x=document.myform.email.value;

var atposition=x.indexOf("@");

var dotposition=x.lastIndexOf(".");

if (atposition<1 || dotposition<atposition+2 || dotposition+2>=x.length){

alert("Please enter a valid e-mail address \n atpostion:"+atposition+"\n dotposition:"+dotposition);

  return false;

  }

}

</script>

<body>

<form name="myform"  method="post" action="#" onsubmit="return validateemail();">

Email: <input type="text" name="email"><br/>

<input type="submit" value="register">

</form>

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### Topic 5

**113.** **How do we add** **JavaScript** **onto a web page?**

There are several way for adding JavaScript on a web page, but there are two ways which are commonly used by developers If your script code is very short and only for single page, then following ways are the best:  
a) You can place <script type="text/javascript"> tag inside the <head> element.

##### **Code**

<head>

<title>Page Title</title>

<script language="JavaScript" type="text/javascript">

   var name = "Vikas Ahlawta"

   alert(name);

<script>

</head>

b) If your script code is very large, then you can make a JavaScript file and add its path in the following way:

##### **Code**

<head>

<title>Page Title<title>

<script type="text/javascript" src="myjavascript.js"></script>

</head>

**114.** **How to access the value of a textbox using** **JavaScript?**

##### **Code**

<!DOCTYPE html>

<html>

<body>

Full name: <input type="text" id="txtFullName"

name="FirstName" value="Vikas Ahlawat">

</body>

</html>

There are following ways to access the value of the above textbox:

var name = document.getElementById('txtFullName').value;

alert(name);

or:

we can use the old way:

document.forms[0].mybutton.

var name = document.forms[0].FirstName.value;

alert(name);

**Note**: This uses the "name" attribute of the element to locate it.

**115.** **How will you get the Checkbox** **status whether it is checked or not?**

var status = document.getElementById('checkbox1').checked;

alert(status);

will return true or false.

**116. How to create arrays in JavaScript?**   
Ans:There are two ways to create array in JavaScript like other languages:

a) The first way to create array  
Declare Array:

##### **Code**

var names = new Array();

Add Elements in Array:-

names[0] = "Vikas";

names[1] = "Ashish";

names[2] = "Nikhil";

b) This is the second way:

var names = new Array("Vikas", "Ashish", "Nikhil");

**117.** **If an array with name as "names" contain three elements, then how will you print the third element of this array?**   
Print third array element document.write(names[2]);   
**Note:-** Array index starts with 0.

**118.** **What is the use of Math Object in JavaScript?**   
The math object provides you properties and methods for mathematical constants and functions.  
ex:-

##### **Code**

var x = Math.PI; // Returns PI

var y = Math.sqrt(16); // Returns the square root of 16

var z = Math.sin(90);    Returns the sine of 90

**119.** **What does "1"+2+4 evaluate to?**   
Since 1 is a string, everything is a string, so the result is 124.

**120.What does 3+4+"7" evaluate to?**   
Since 3 and 4 are integers, this is number arithmetic, since 7 is a string, it is concatenation, so 77 is the result.

Set4

### Topic 1

**121.** **How do you change the style/class on any element using JavaScript?**

Code

document.getElementById("myText").style.fontSize = "10";

-or-

document.getElementById("myText").className = "anyclass";

**122.** **Does JavaScript support foreach loop?**   
JavaScript 1.6(ECMAScript 5th Edition) support foreach loop.

**123.** **What is an object in JavaScript, give an example?**   
An object is just a container for a collection of named values:  
  
// Create the man object

##### **Code**

var man = new Object();

man.name = 'Vikas Ahlawat';

man.living = true;

man.age = 27;

**124. How you will add function as a property in a JavaScript object? Give an example.**

##### **Code**

var man = new Object();

man.name = 'Vikas Ahlawat';

man.living = true;

man.age = 27;

man.getName = function() { return man.name;}

console.log(man.getName()); // Logs 'Vikas Ahlawat'.

**125.** **What is the similarity between the 1st and 2nd statement?**   
1st:- var myString = new String('male'); // An object.  
2nd:- var myStringLiteral = 'male'; // Primitive string value, not an object.  
Ans: Both will call String() constructor function  
You can confirm it by running the following statement:

console.log(myString.constructor, myStringLiteral.constructor);

**126. What will be the output of the following statements?**

##### **Code**

var myString = 'Vikas' // Create a primitive string object.

var myStringCopy = myString; // Copy its value into a new variable.

var myString = null; // Manipulate the value

console.log(myString, myStringCopy);

Ans: // Logs 'null Vikas'

**127.** **Consider the following statements and tell what would be the output of the logs statements?**

var price1 = 10;

var price2 = 10;

var price3 = new Number('10'); // A complex numeric object because new was used.

console.log(price1 === price2);

console.log(price1 === price3);

Ans:

console.log(price1 === price2); // Logs true.

console.log(price1 === price3); /\* Logs false because price3

contains a complex number object and price 1

is a primitive value. \*/

**128.** **What would be the output of the following statements?**

var object1 = { same: 'same' };

var object2 = { same: 'same' };

console.log(object1 === object2);

Ans: // Logs false, **JavaScript** does not care that they are identical and of the same object type.  
When comparing complex objects, they are equal only when they reference the same object (i.e., have the same address). Two variables containing identical objects are not equal to each other since they do not actually point at the same object.

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### Topic 2

**129.** **What would be the output of the following statements?**

##### **Code**

var object1 = { same: 'same' };

var object2 = object1;

console.log(object1 === object2);

Ans: // Logs true

**130.** **Name any two JavaScript functions which are used to convert nonnumeric values into numbers?**   
Ans:

##### **Number()**

##### **parseInt()** they can’t understand decimal number

##### **parseFloat()** it can understand decimal number

##### **Code**

var n1 = Number("Hello world!"); //NaN

var n2 = Number("");             //0

var n3 = Number("000010");       //10

var n4 = Number(true);           //1

var n5 = Number(NaN);            //NaN

**131. Example of**  **JavaScript Support automatic type conversion.**

var s = '5';

var a = s\*1; change to number

var b = +s; change to number

typeof(s); //"string"

typeof(a); //"number"

typeof(b); //"number"

**132. Name some of the JavaScript features.**

1. JavaScript is a lightweight, interpreted programming language.

2. JavaScript is designed for creating network-centric applications.

3. JavaScript is complementary to and integrated with java.

4. JavaScript is complementary to and integrated with HTML.

5. JavaScript is open and cross-platform.

**133.  What are the advantages of using JavaScript?**

1. Less server interaction: You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.

2. Immediate feedback to the visitors: They don’t have to wait for a page reload to see if they have forgotten to enter something.

3. Increased interactivity: You can create interfaces that react when the user hovers over them with a mouse or activates then via the keyboard.

4. Richer Interfaces: You can use JavaScript to include such items as drag-and-drop components and sliders to give a Rich Interface to your site visitors.

**134. What are disadvantages of using JavaScript?**

We cannot treat JavaScript as a full fledged programming language.

It lacks the following important features:-

1.    Client-side JavaScript does not allow the reading or writing of files. This has been kept for security reason.

2.    JavaScript cannot be used Networking applications because there is no such support available.

3.    JavaScript doesn’t have any multithreading or multiprocess capabilities.

**135. How many types of fuctions JavaScript supports?**

A function  in JavaScript can be either named or anonymous.

**136. How to define a anonymous function?**

An anonymous function can be defined in similar way as a normal function but it would not have any name.

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### Topic 3

**137. Can you assign a anonymous function to a variable?**

Yes, an anonymous function can be assigned to variable.

**138. Can you pass a anonymous function as an argument to another function?**

Yes, an anonymous function can be passed as an argument to another function.

**139. What is arguments object in JavaScript?**

JavaScript variable arguments represents the arguments passed to a function.

**140. What is the purpose of ‘this’ operator in JavaScript?**

JavaScript famous keyword **this** always refers to the current context.

**141. Which type of variable among global and local, takes precedence over other if names are same?**

A local variable takes precedence over a  global variable with same name.

**142. What is closure?**

Closures are created whenever a variable that is defined outside the current scope is accessed from within some inner scope.

**143. Which built-in method returns the length of the string?**

Length() method returns the length of the string.

**144. How to delete a Cookie using JavaScript?**

Sometimes you will want to delete a cookie so that subsequent attempts to read the cookie return nothing,

To do this, you just need to set the expiration date to a time in the past.

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### Topic 4

**145. How to handle exceptions in JavaScript?**

The latest versions of JavaScript added exception handling capabilities.

JavaScript implements the try…catch…finally construct as well the throw operator to handle exceptions.

You can catch programmer-generated and runtime exceptions, but you cannot catch JavaScript syntax errors.

**146. How can you create an Object in JavaScript?**

JavaScript supports Object concept very well.

You can create an object using the object literal as follows:-

var emp={

            name : “Zara”;

age : 10

} ;

**147. How can you read properties of an Object in JavaScript?**

  You can write and read properties of an object using the dot notation as  follows-

//Getting object properties

emp.name ==> Zara

emp.age ==> 10

//Setting object properties

emp.name = “Daisy” <== Daisy

emp.age = 20 <==20

**148. How can you create an Array in JavaScript?**

You can define arrays using the array literal as follows:-

var x = [];

 var y= [1, 2, 3, 4, 5];

**149. How to read elements of an array in JavaScript?**

An array has length property that is useful for iteration.

We can read elements of an array as follows-

var x = [1, 2, 3, 4, 5];

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

//Do something will x[i]

}

**150. What is a named function in JavaScript? How to define a named function?**

A named function has a name when it is defined.

A named function can be defined using function keyword as follows :-

function named(){      
            //do some stuff here

}

**151. How can you get the type of arguments passed to a function?**

Using typeof operator, we can get the type of arguments passed to a function.

For example.

function func(x){

            console.log(typeof x, arguments.length);

}

func();   ==> “undefined”,0

func(1);  ==> “number”,1

**152. How can you get the reference of a caller function inside a function?**

The arguments object has a callee property, which refers to a function you’re inside of.

For example.

function func(){

            return arguments.callee;

}

func();  ==> func

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### Topic 5

**153. What are the valid scopes of a variable in JavaScript?**

The scope of a variable is the region of your program in which it is defined.

JavaScript variable will have only two scopes.

1.    Global variables: A global variable has global scope which means it is visible everywhere in your JavaScript code.

2.    Local Variables: A local variable will be visible only within a function where it is defined.

Function parameters are always local to that function.

**154. What is callback?**

A callback is a plan JavaScript function passed to some method as an argument or option.

Some callbacks are just events, called to give the user a chance to react when a certain state is triggered.

**155. Give an example of closure?**

Following example shows how the variable counter is visible within the create, increment, and print functions, but not outside of them.

function create() {

            var counter = 0;

return {

            increment: function() {

            counter++;

},

print: function() {

            console.log(counter);

      }

   }

}

var c = create();

c.increment();

c.print();    ==>1

**156. Which built-in method returns the character at the specified index?**

charAt() method returns the character at the specified index.

**157. Which built-in method combines the text of two strings and returns a new string?**

() combines the text of two strings and returns a new string.

**158. Which build-in method calls a function for each element in the array?**

forEach() method calls a function for each elementin the array.

**159. Which build-in method returns the index within the calling String object of the first occurrence of the first occurrence of the specified value?**

indexOf() method returns the index within the calling String object of the first occurrence of the specified value, or -1 if not found.

**160. Which built-in method removes the last element from an array and returns that element?**

pop() method removes the last element from an array and returns that element.

Set5

### Topic 1

**161. Which built-in method adds one or more elements to the end of an array and returns the new length of the array?**

push() method adds  one or more elements to the end of an array and returns the new length of the array.

**162. Which built-in method reverses the order of the elements of an array?**

reverse() method reverses the order of the elements of an array, the first becomes the last, and the last becomes the first.

**163. Which build-in method sorts the elements of an array?**

sort() method sorts the elements of an array.

**164. Which build-in method returns the characters in a string beginning at the specified location?**

substr() method returns the characters in a string beginning at the specified location through the specified location through the specified number of characters.

**165. Which build-in method returns the calling string value converted to lower case?**

toLowerCase() method returns the calling string value converted to lower case.

**166. Which build-in method returns the calling string value converted to upper case?**

toUpperCase() method returns the calling string value converted to upper case.

**167. Which build-in method returns the string representation of the number’s value?**

toString() method returns the string representation of the number’s value.

**168. What are the variable naming conventions in JavaScript?**

While naming your variables in JavaScript keep following rules in mind:-

1.    You should  not use any of the JavaScript reserved keyword as variable name. These keywords are mentioned in the next section. For example, break or Boolean variable names are not valid.

2.    JavaScript variable names should not start with a numeral (0-9). They must begin with a letter or the underscore character. For example, 123test is an invalid variable name but\_123test is a valid one.

JavaScript variable names are case sensitive. For example, Name and name are two different variables.

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### Topic 2

**169. How typeof operator works?**

The typeof is a unary operator that is placed before its single operand, which can be of any type.

Its value is a string indicating the data type of the operand.

The typeof operator evaluates to “number”, “string”, or “boolean” if its operand is a number, string or boolean value and returns true or false based on the evaluation.

**170. What typeof returns for a null value?**

It returns ”object”.

**171. Can you access Cookie using javascript?**

JavaScript can also manipulate cookies using the cookies using the cookie property of the Document object.

JavaScript can read, create, modify, and delete the cookie or cookie that apply to the current web page.

**172. How to create a Cookie using JavaScript?**

The simplest way to create a cookie is to assign a string value to the document.

Cookie object, which looks like this :-

Syntax :-

Document.cookie = “key1 = value1; key2 = value2; expires = date”;

Here expires attribute is option.

If you provide this attribute with a valid date or time then cookie will expire at the given date or time and after that cookies’ value will not be accessible.

**173. How to read a Cookie using JavaScript?**

1. Reading a cookie is just as simple as writing one, because the value of the document cookie object is the cookie. So you can use this string whenever you want to access the cookie.

2. The document.cookie string will keep a list of name = value pairs separated by semicolons, where name is the name of a cookie and value is its string value.

3. You can use strings’ split() function to break the string into key and values.

**174. How to redirect a url using JavaScript?**

This is very simple to do a page redirect using JavaScript at client side.

To redirect your site visitors to a new page, you just need to add a line in your head section as follows :-

<head>

<script type=”text/javascript”>

<!-window.location=[http://www.newlocation.com](http://www.newlocation.com/);-->

</script>

</head>

**175. How to print a web page using javascript?**

JavaScript helps you to implement this functionality using print function of window object.

The JavaScript print function window.print() will print the current web page when executed.

**176. What is Date object in JavaScript?**

1. The Date object is a datatype built into the JavaScript language.

2. Date objects are created with the new Date().

3. Once a Date object is created, a number of methods allow you to operate on it.

4. Most methods simply allow you to get and set the year, month, day, hour, minute, second, and milliseconds fields of the object, using either local time or UTC(universal, or GMT) time.

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### Topic 3

**177.** **What is Number object in JavaScript?**Number object represents numerical date, either integers or floating-point numbers.   
In general, you do not need to worry about Number objects because the browser automatically converts number literals to instances of the number class.   
Syntax :-   
Creating a number object :-   
var val = new Number(number);   
If the argument cannot be converted into a number. It returns NaN (Not-a-Number).

**178.** **What is purpose of onError event handler in JavaScript?**The onerror event handler was the first feature to facilitate error hardling for   
JavaScript.   
The error event is fired on the window object whenever an exception occurs on the page.   
The onerror event handler provides three pieces of information to identify the exact nature of the error :-   
Error message: The same message that the browser would display for the given error.   
URL: The file in which the error occurred.

Line number : The number in the given URL that caused the error.

**179.** **How to handle exceptions in JavaScript?**The latestversions **of**JavaScriptaddedexception handlingcapabilities.   
JavaScript implementsthe try...catch...finally construct as well asthe throw operator to handleexceptions.

You can catch programmer-generated and runtime exceptions,but you cannot catch Javascript syntax errors.

## 180. What are the different actions that are performed using JavaScript?

- JavaScript allows the computer to be more secure by putting the privacy policies and disable the unauthorized access to the files.   
- It allows many actions to be performed like, setting the browser's preferences and receiving the request from the servers for the client computer.   
- The settings that are used gets saved on the client side on the features like actions buttons, appearance and printing.   
- It allows easy launching of an application on the client computer with interactive data to be communicated between the server and the client.  
- It allows reading and writing of files or directories on the client or server side.   
- It allows easy capturing of the data that is live streamed from the server to the client machine for retransmission.   
- It also allows to safe and secure the application from the outside world.

## 181. How can JavaScript language be separated from objects?

JavaScript treats and creates the applications for the scripting to make the browser's compatible for use. The language is separated from the objects as it allows the syntax to change the environment. It is a language that keeps the page element in the HTML document. JavaScript allows the elements of the page to remain in sync with the document objects. The language is used to create objects that are connected to page elements and other elements in a language. The separation allows the concept of development and effort to be shared with each factor. The JavaScript language allows dynamic data to be presented using the weakly typed language. It also support any action to be taken to support user interface and graphics.

## 182. What is the importance of <SCRIPT> tag?

- JavaScript is used inside <SCRIPT> tag in HTML document. The tags that are provided the necessary information like alert to the browser for the program to begin interpreting all the text between the tags.   
- The <script> tag uses JavaScript interpreter to handle the libraries that are written or the code of the program.   
- JavaScript is a case sensitive language and the tags are used to tell the browser that if it is JavaScript enabled to use the text written in between the <Script> and </Script> tags.   
- The example is given as :

<HTML>  
<HEAD>  
<!--   
<SCRIPT> // Starting of the scripting language  
//Your code here  
</SCRIPT> --> // End of the scripting language  
</HEAD>  
<BODY>  
// your code here  
</BODY>  
</HTML>

## 183. Why JavaScript is called as Script for all browsers?

JavaScript is written after <SCRIPT> tag and it is surrounded in between the <!-- your code --> tags, this is also known as comment tag. JavaScript interpreter treats the tag such that it treats all the lines in the comments as script lines. The JavaScript comment starts with // inside the <SCRIPT> tag. The script is contained inside <HTML> tag that contains a comment tag. The browser that is non-compatible with JavaScripts ignore the lines and move on, but compatible browsers always treats it as a script and execute it. The browser treat the written lines between the comment tag as normal lines and just thinking of the comment ignores it. Some browsers just treat the <!-- comment--> as a comment only and ignores whatever is written inside it.

## 184. What are the requirements of Web application using JavaScript?

There are lots of application that require certain things when the user uses a JavaScript like:  
Data entry validation : This tell that if the field of the form is filled out then during the processing of the server the client side can interact with it.  
Serverless CGIs : This describes the processes that are not used with JavaScript but programmed as CGI on server, it gives low performace due to more interaction between the applicatioin and the user.   
Dynamic HTML interactivity : It allows dynamic position of the data without using any other scripting language.   
CGI prototyping : It allows more reduction of time to access the user interface before implementing the application of the CGI.

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### Topic 4

## 185. What are the different objects used in JavaScripts?

JavaScript uses a hierarchical structure that applies to the objects in a document. There are some objects that show the relationship of one object to another using the language.  
Window object :   
This is the topmost object in the hierarchy. It represent the content area of browser window that consists of HTML documents. Each frame is also a window that has some actions inside it.  
Document object :  
This object gets loaded in a window and consists of objects of different kind in the model. It consists of the content that will be written in the script.  
Form object :   
Form objects are used for more interaction with the users. It represents the form elements inside <FORM>...</FORM> tag.

## 186. Why is object naming important to use in JavaScript?

- Object naming is used to create script references to objects while assigning names to every scriptable object in the HTML code. The browsers that are script compatible looks for the optional tags and attributes that enables the assigning of a unique name to each object. The example is :

 <form name=”dataEntry” method=get>  
<input type=”text” name=”entry”>  
<frame src=”info.html” name=”main”>

 - The names act as a nametags through which the elements can be easily identified and easily located by the browsers. The references made for each object includes the object hierarchy from the top down. References are used to include names of each object that are coming in the window object. The object naming conventions are easy way to loacte the objects and the linking between them can be done more comfortably.

## 187. What are the methods involved in JavaScript?

- Method is an informative that gets performed over an action that is related to the object. Method either performs on some object or affect any part of the the script or a document. Object can have as many number of methods that have associations with other objects. There is a method that is used by the JavaScript statement that includes a reference to an object this is given as :

document.orderForm.submit()  
document.orderForm.entry.select()

 - These are the functions which perform the dynamic interaction with the user. The first statement execute the element when pressed submit button to send a form to a server. These two statements are related to only the form. The scripts that are invoked will have the write of the document as well and will be written as :

document.write(“Give the version” + navigator.appVersion)

document.write(“ of <B>” + navigator.appName + “</B>.”)

## 188. Explain with an example the use of event handlers in JavaScript.

The events in JavaScript are the actions in a document that result from user activity. The actions are like clicking on a button or typing a character in the form. JavaScript object in a document that receives events of different kinds. To handle the events that are taking place requires an even handler that can handle the execution of the events. Event acts like an added attribute that is entered in object’s HTML. The attribute is consisting of event name, sign like (=), instructions. The following code shows the event handler as :

<HTML>  
<BODY>  
<FORM>  
<INPUT TYPE=”button” VALUE=”Hello” onClick=”window.alert (‘HELLO WORLD’)”>  
</FORM>  
</BODY>  
</HTML>

## 189. How are tag positions used in JavaScript?

- The tag can be inserted in a document wherever there is a requirement for a tag to be put. Nested tags are also possible within a <HEAD>...</HEAD> tag. There are many other ways to use the tag like inside <BODY>...</BODY> section.   
- The tags can be placed inside <SCRIPT> tag also. The position of a particular tag is not fixed and it can be placed anywhere in the HTML document. Head is a used to place the tags that consists of noncontent settings.   
- The example will show the position of <SCRIPT> tag :

<HTML>  
<HEAD>  
<TITLE>Tag position</TITLE>  
<SCRIPT LANGUAGE=”Text/JavaScript”>  
// your script statement(s) here  
</SCRIPT>  
</HEAD>  
<BODY>  
</BODY>  
</HTML>

- This uses the <SCRIPT> tag inside the HEAD section.   
- There is one more code that will show the positon of <SCRIPT> in body section and it is as :

<HTML>  
<HEAD>  
<TITLE>Tag position</TITLE>  
</HEAD>  
<BODY>  
<SCRIPT LANGUAGE=”Text/JavaScript”>  
// your script statement(s) here  
</SCRIPT>  
</BODY>  
</HTML>

## 190. What are the main functions performed by JavaScript Statements?

The <SCRIPT> Script statement(s) </SCRIPT> tag consists of JavaScript statement. Just to be compatible with all the browsers it is been written in comments and it also accepts a semicolon(;) at the end of every statement. JavaScript also uses the carriage return at the end of a statement. Every statement has a purpose like:   
- Define or initialize a variable that will be used in an object when executing the script  
- Assign a value to a property or variable so that user inputs can be taken according to the values that are defined in it.  
- Change the value of a property or variable to give more flexibility to the use of a scripting language.   
- Invoke an object’s method to allow faster processing of the system  
- Invoke a function routine to allow the function to perform various activities so that the application can run at faster speed.

## 191. Explain the process of document loading.

When a document loads that means it is getting ready for the execution on the system. The document loads in the browser when there is a running of a document on the system. The applicaiton allows the JavaScript to look for all the properties that is given to the object and include all the property values that are used in the content that is being rendered for the page about to load. It is always a good practice to include the content in <SCRIPT> tags and statements in the Body portion of the document. This way the application gets loaded immediately.

<HTML>  
<HEAD>  
<TITLE>Immediate loading</TITLE>  
</HEAD>  
<BODY>  
<H1>JavaScript used</H1>  
<HR>  
<SCRIPT LANGUAGE=”Text/JavaScript”>  
<!-- Comments are used to hide from old browsers  
document.write(“Give the version “ + navigator.appVersion)  
document.write(“ of <B>” + navigator.appName + “</B>.”)  
// end of the comment section -->  
</SCRIPT>  
</BODY>  
</HTML>

## 192. Write a program to exaplain the deferred scripts using event handlers in JavaScript.

Event handler allows a trigger to be generated when a user action takes place like clicking a button, clicking on images, etc. OnLoad is an event handlers that handles all of the page's components that includes images, Java applets, and embedded multimedia to laod it in browser. The event handlers are mostly used in <BODY> tag. Event handler is also used to run several internal script statements such that it is better to use statements in a function definition and event handler invoking the function. The code below shows onLoad event handler triggers the done() function. The function consists of an alert box that gets displayed.

<HTML>  
<HEAD>  
<TITLE>Event\_handler</TITLE>  
<SCRIPT LANGUAGE=”Text/JavaScript”>  
<!--  
function done()   
{  
   alert(“The page has finished loading.”)  
}  
// -->  
</SCRIPT>  
</HEAD>  
<BODY Event\_handler=”done()”>  
</BODY>  
</HTML>

* http://firstenquiry.com/lms/theme/image.php/academi/core/1494956158/spacer

http://firstenquiry.com/lms/theme/image.php/academi/core/1494956158/spacer

### Topic 5

## 193. What is the difference between Scripting and Programming?

- Scripting is easier to write than programming. As programming requires more hands on to the code and a language specification to write.   
- Scripting consists of lots of tools to easily create an object model and run it using any browser, wheras programming doesn't have many tools to create an object model and it is not easy to use browser compatibility.   
- Scripts work with more than just objects, each statement of the JavaScript does something means perform some actions, whereas programming becomes different as each and every action takes time to execute.   
- Scriptting doesn't require lots of knowledge to be provided with and can be easily learnt, but to learn a programming language it requires lots of knowledge.

## 194. What does dynamic component in JavaScript contain?

Dynamic component is a model that consists of many other sub-components that are based on dynamic theory only like:  
Dynamic typing :   
These are associated with the values and not having any association with the variables. JavaScript support the use of many types that can be used as an object.   
Object based :   
JavaScript is an object-oriented language and it deals with the objects that are associated arrays used with prototypes. The properties of the object based component can be modified, removed or added at run-time. The properties are using built in functions that helps to keep the property of dynamicity of the application.   
Run-time evaluation :   
JavaScript provides a run time evaluation using the eval() that takes some arguments provided during run time. This evaluation is used to make the scripting language more widely used as run time evaluation slows down the system but JavaScript uses the libraries to take less space.

## 195. What is the difference between script type and the script language attributes?

- The script type specifies the type of content that is used to show the language used by the browsers like “language=text/javascript”. This defines the MIME type that is also known as Multipurpose Internet Mail Extensions (MIME). Text in this defines a plain text format and script defines the language that will be used.   
- The script language attribute on the other hand specify a particular version of JavaScript language that is required to run the script and to provide a mechanism to fall back if any browser doesn't support it.   
- Script type is used to define the type through which the browser can understand the language and all the compatible browsers can execute the type according to themselves, whereas the script language attribute defines the content and its attributes that are used.

## 196. What are Math Constants and Functions using JavaScript?

- Math object has two constant : Math.PI and Math.E  
- Math object has following functions :  
Math.abs(val1); :It will give absolute value of val1.  
Math.max(val1,val2); :This fuction will return maximum value from val1 and val2.  
Math.random(); :This function will return a random number between 0 and 1.  
Math.floor(val1) :This function will returns decimal value of val1.

## 197. What is difference between undefined variable and undeclared variable?

- The variable which are declared in the program but not assigned any value yet is called undefined variable while the variable which are not declared in the program is called undeclared variable.  
- For Example :

undeclared variable:  
<script>  
var p;  
alert(p); // This will give error because p is undeclared variable.  
</script>  
? undefined variable  
<script>  
alert(p); //This will give error because p is undefined.  
</script>

## 198. What is encodeURI() function?

- encodeURI() function is used to encode the URI.  
- This function does not encode following special characters :  
' = , ? : $ @ / & # + '  
- Syntax : encodeURI(uri), Where uri is URI to be encoded.  
- For example :

<script>  
var uri = “EmpDetails.asp?Emp=årpit&mode=edit”;  
document.write(encodeURI(uri) + “<br/>”);  
</script>

Output :

EmpDetails.asp?Emp=%C3%A5&mode=edit.

## 199. How to get height and width of different browser in Javascript?

Following examples illustrate the different ways to get height and width of different browser.  
For Non-IE :

var Width;  
var Height;  
Width = window.innerWidth;  
Height = window.innerHeight;

For IE 6+ in standards compliant mode :

Width = document.documentElement.clientWidth;  
Height = document.documentElement.clientHeight;

For IE 4 compatible :

Width = document.body.clientWidth;  
Height = document.body.clientHeight;

## 200. What is Shift() method in Javascript?

-The shift() method is similar as the pop() method but the difference is that Shift method works at the beginning of the array.   
-The shift() method take the first element off of the given array and returns it. The array on which is called is then altered.  
- For example :

var myarray = ["apple ", "banana ", "mango "];   
console.log(myarray.shift());  
console.log(myarray);

- We get the following console output :

apple  
["banana ", "mango "];

- When we call shift() on an empty array, it will return an undefined value.