



Css important question and answer

Advanced Java Programming (Government Polytechnic, Nagpur)

Q Differentiate between concat() and join() methods of array object.

concat()	join()
1) Array elements can be combined by using concat() method of Array object.	1) Array elements can be combined by using join() method of Array object.
2) The concat() method separates each value with a comma.	2) The join() method also uses a comma to separate values, but you can specify a character other than a comma to separate values.
3) Eg: var str = cars.concat() The value of str is 'BMW, Audi, Maruti'	3) Eg: var str = cars.join(' ') The value of str in this case is 'BMW Audi Maruti'

Q Different between Client side scripting and Server side scripting.

Client-side scripting	Server-side scripting
1) Source code is visible to the user.	1) Source code is not visible to the user because its output of server-side is an HTML page.
2) Its main function is to provide the requested output to the end user.	2) Its primary function is to manipulate and provide access to the respective database as per the request.
3) It usually depends on the browser and its version.	3) In this any server-side technology can be used and it does not depend on the client.
4) It runs on the user's computer.	4) It runs on the webserver.
5) There are many advantages linked with this like faster response times, a more interactive application.	5) The primary advantage is its ability to highly customize, response requirements, access rights based on user.
6) It does not provide security for data.	6) It provides more security for data.
HTML, CSS, and javascript are used.	PHP, Python, Java, Ruby are used.

Q 1. What do you mean by scripting language ? Give one example.

Script is a small piece of program that can add interactivity to the website

Scripting language is a form of programming language that is usually interpreted rather than compiled.

There are 2 types of scripting language.

1. Client Side scripting language -- eg javascript, VBscript
2. Server side scripting language – JSP,ASP,PHP

Q 2. List out any 6 features of java script.

- Scripting Language. JavaScript is a lightweight scripting language made for client-side execution on the browser. ...
- Interpreter Based. ...
- Event Handling. ...
- Light Weight. ...
- Case Sensitive. ...
- Control Statements. ...
- Objects as first-class citizens. ...

Q 3. How to write java script document ? Give one example.

Now that you understand the importance of JavaScript let us understand the origin of document.write in JavaScript.

JavaScript has access to an object called window in the browser environment. It represents the open window of the browser. This object has tons of properties, for instance, the property frames when used return the frame where the window is running on.

There are other properties and methods such as length, localStorage, and more. For today's tutorial, we will stick to the document property/object of the window object.

The document property returns the document object of the window which is being used. When an HTML element is loaded onto the web browser then it becomes a part of the document object. The document object (in the window object) is the root node of the HTML page. One can access the document object either by using window.document or just document. Here is how one can access it:

```
document.write("This is line 1");  
document.write("This is line 2");  
// output: This is line 1This is line 2
```

Q 4. Define object and method.

JavaScript is designed on a simple object-based paradigm. An object is a collection of [properties](#), and a property is an association between a name (or key) and a value. A property's value can be a function, in which case the property is known as a [method](#).

Objects in JavaScript, just as in many other programming languages, can be compared to objects in real life. In JavaScript, an object is a standalone entity, with properties and type.

Compare it with a cup, for example. A cup is an object, with properties. A cup has a color, a design, weight, a material it is made of, etc. The same way, JavaScript objects can have properties, which define their characteristics.

In addition to objects that are predefined in the browser, you can define your own objects. This chapter describes how to use objects, properties, and methods, and how to create your own objects.

Q 5. Describe break and continue with the help of an example.

The break and continue statements are the jump statements that are used to skip some statements inside the loop or terminate the loop immediately without checking the test expression. These statements can be used inside any [loops](#) such as for, while, do-while loop.

[Break](#): The break statement in java is used to terminate from the loop immediately. When a break statement is encountered inside a loop, the loop iteration stops there, and control returns from the loop immediately to the first statement after the loop. Basically, break statements are used in situations when we are not sure about the actual number of iteration for the loop, or we want to terminate the loop based on some condition.

Syntax : break;

In Java, a break statement is majorly used for:

- To exit a loop.
- Used as a “civilized” form of goto.
- Terminate a sequence in a switch statement.

Q 6. Write a program to take the input from user using prompt box.

1. `<html>`
2. `<head>`
3. `<script type = "text/javascript">`
4. `function fun() {`
5. `prompt ("This is a prompt box", "Hello world");`
6. `}`
7. `</script>`
8. `</head>`
- 9.
10. `<body>`
11. `<p> Click the following button to see the effect </p>`
12. `<form>`
13. `<input type = "button" value = "Click me" onclick = "fun();" />`
14. `</form>`
15. `</body>`
16. `</html>`

Q 7. Define variables and keywords with example.

Variables : Always declare JavaScript variables with `var` , `let` , or `const` . The `var` keyword is used in all JavaScript code from 1995 to 2015. The `let` and `const` keywords were added to JavaScript in 2015. If you want your code to run in older browsers, you must use `var` .

Keywords: `var` is the keyword that tells JavaScript you're declaring a variable. `x` is the name of that variable. `=` is the operator that tells JavaScript a value is coming up next.

In this example, `x`, `y`, and `z`, are variables, declared with the `var` keyword:

```
var x = 5; var y = 6; var z = x + y;
```

Q 8. How to sort the array.

You can use the JavaScript `sort()` method to sort an array. The `sort()` method accepts an array as an argument and sorts its values in ascending order. Arrays are sorted in place which means the original array is modified.

Introduction to JavaScript Array `sort()` method

The `sort()` method allows you to sort elements of an [array](#) in place. Besides returning the sorted array, the `sort()` method changes the positions of the elements in the original array.

By default, the `sort()` method sorts the array elements in ascending order with the smallest value first and largest value last.

Q 9. How to call a function from html. Give one example.

Approach 1: First, take a button by the input tag. After clicking the button, you can see a dialog box that pops up on the screen that has already been declared in the JavaScript function as an alert. The `clickEvent()` function allows executing the `alert()` when this button gets clicked by using `onclick()` method.

Firstly, we have to type the script tag between the starting and closing of `<head>` tag just after the title tag. And then, type the JavaScript function. Step 2: After then, we have to call the JavaScript function in the Html code for displaying the information or data on the web page.

```
<!DOCTYPE html>
<html>
<body>
<input type="button" onclick="clickEvent();"
value="button" />
<script>
function clickEvent() {
alert("Who!! You have discovered");
}
</script>
</body>
</html>
```

Q 10. List out any 4 methods for string class.

- JavaScript String Length. The length property returns the length of a string: ...
- JavaScript String `slice()` ...
- JavaScript String `substring()` ...
- JavaScript String `substr()` ...
- Replacing String Content. ...
- JavaScript String `ReplaceAll()` ...
- JavaScript String `toUpperCase()` ...

Q 11. Define form. List out any 4 uses of form.

An **HTML form** is *a section of a document* which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.

An HTML form facilitates the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number, etc. .

Why use HTML Form :

HTML forms are required if you want to collect some data from of the site visitor.

For example: If a user want to purchase some items on internet, he/she must fill the form such as shipping address and credit/debit card details so that item can be sent to the given address.

Q 12. What is the difference between text field and text area. Give its syntax.

TextField

- A **TextField** is one of the most important components that allow the user to an input text value in a **single line format**.
- A **TextField** will generate an **ActionListener** interface when we trying to enter some input inside it.
- The **JTextField** is a subclass of **JTextComponent** that provides a common set of methods used by JTextField.
- The important methods in the JTextField class are **setText()**, **getText()**, **setEnabled()**, etc.

TextArea

- A **TextArea** is a **multi-line text component** to display text or allow the user to enter text.
- A **TextArea** will generate a **CaretListener** interface.
- The **JTextArea** is a subclass of **JTextComponent** that provides a common set of methods used by JTextArea.
- The important methods in the JTextArea class are **setText()**, **append()**, **setLineWrap()**, **setWrapStyleWord()**, **setCaretPosition()**, etc.

Q 13. What do you mean by intrinsic function ?

An *intrinsic function* is a function that performs a mathematical, character, or logical operation. You can use intrinsic functions to make reference to a data item whose value is derived automatically during execution.

Data processing problems often require the use of values that are not directly accessible in the data storage associated with the object program, but instead must be derived through performing operations on other data. An *intrinsic function* is a function that performs a mathematical, character, or logical operation, and thereby allows you to make reference to a data item whose value is derived automatically during execution.

The intrinsic functions can be grouped into six categories, based on the type of service performed:

- Mathematical
- Statistical
- Date/time
- Financial
- Character-handling
- General

You can reference a function by specifying its name, along with any required arguments, in a PROCEDURE DIVISION statement.

Functions are elementary data items, and return alphanumeric character, national character, numeric, or integer values. Functions cannot serve as receiving operands.

Q 14. Define cookie. Write syntax to create cookies.

Web Browsers and Servers use HTTP protocol to communicate and HTTP is a stateless protocol. But for a commercial website, it is required to maintain session information among different pages. For example, one user registration ends after completing many pages. But how to maintain users' session information across all the web pages.

In many situations, using cookies is the most efficient method of remembering and tracking preferences, purchases, commissions, and other information required for better visitor experience or site statistics.

How It Works ?

Your server sends some data to the visitor's browser in the form of a cookie. The browser may accept the cookie. If it does, it is stored as a plain text record on the visitor's hard drive. Now, when the visitor arrives at another page on your site, the browser sends the same cookie to the server for retrieval. Once retrieved, your server knows/remembers what was stored earlier.

Cookies are a plain text data record of 5 variable-length fields –

- **Expires** – The date the cookie will expire. If this is blank, the cookie will expire when the visitor quits the browser.
- **Domain** – The domain name of your site.
- **Path** – The path to the directory or web page that set the cookie. This may be blank if you want to retrieve the cookie from any directory or page.
- **Secure** – If this field contains the word "secure", then the cookie may only be retrieved with a secure server. If this field is blank, no such restriction exists.
- **Name=Value** – Cookies are set and retrieved in the form of key-value pairs

cookie = "key1 = value1;key2 = value2;expires = date"; Here the expires attribute is optional. If you provide this attribute with a valid date or time, then the cookie will expire on a given date or time and thereafter, the cookies' value will not be accessible.

Q 15. Define window & frame.

Frame windows are windows that frame an application or a part of an application. Frame windows usually contain other windows, such as views, tool bars, and status bars. In the case of `CMDIFrameWnd`, they may contain `CMDIChildWnd` objects indirectly. `CFrameWnd`. The base class for an SDI application's main frame window.

Q2. Explain alert box and confirm box with the help of an example.

Alert box : An alert dialog box is mostly used to give a warning message to the users. For example, if one input field requires to enter some text but the user does not provide any input, then as a part of validation, you can use an alert box to give a warning message.

Nonetheless, an alert box can still be used for friendlier messages. Alert box gives only one button "OK" to select and proceed.

Example

You can try to run the following code to learn how to add an alert box –

Live Demo

```
<html>
  <head>
    <script>
      <!--
        function Warn() {
          alert ("This is a warning message!");
          document.write ("This is a warning message!");
        }
      //-->
    </script>
  </head>
  <body>
    <p>Click the following button to see the result: </p>
```



```
<form>
  <input type="button" value="Click Me" onclick="Warn();"
/>

</form>
</body>
</html>
```

confirm box :

- A Confirmation Box is used to provide user with a choice about an event.
- This type of popup box has two buttons, named 'OK' and 'Cancel', and return 'true' and 'false' when respective buttons are clicked.
- Confirmation Box can be called using the function confirm("message").

Below example illustrates the differences between alert Box and confirmation Box. Example:

```
<!DOCTYPE HTML>
<html>
```

```
<head>
  <title>
    Alert Box vs Confirmation Box
  </title>
</head>
```

```
<body style="text-align:center;" id="body">

  <h1 style="color:green;">
    GeeksforGeeks
  </h1>
```

```
<button onclick="alertBox()">
    Show Alert Box
</button>
<button onclick="confirmationBox()">
    Show Confirmation Box
</button>

<script>
    function alertBox(){
        alert("GeeksforGeeks: This" +
            " is an Alert Box.");
    }

    function confirmationBox(){
        confirm("GeeksforGeeks: This" +
            " is a Confirmation Box.");
    }
</script>
</body>

</html>
```

Q3. Write a program for switch case statement in java script to print months .

```
<html>
  <script language="JavaScript">
    <!--
    function getMonthString(num)
    {
      var month;  //Create a local variable to hold the string
      switch(num)
      {
        case 0: month="January"; break; case 1: month="February"; break;
        case 2: month="March"; break; case 3: month="April"; break;
        case 4: month="May"; break; case 5: month="June"; break;
        case 6: month="July"; break; case 7: month="August"; break;
        case 8: month="September"; break; case 9: month="October"; break;
        case 10: month="November"; break; case 11: month="December";
        break;
        default: month="Invalid month";
      } return month;
    }
    theDate = new Date();
    document.write("The month is
    ",getMonthString(theDate.getMonth()));
    -->
  </script> </html>
```

Q4. Explain looping in java script.

Looping in programming languages is a feature that facilitates the execution of a set of instructions/functions repeatedly while some condition evaluates to true. For example, suppose we want to print “Hello World” 10 times. This can be done in two ways as shown below:

Iterative Method: The iterative method to do this is to write the `document.write()` statement 10 times.

Many things may seem confusing to you in the above program at this point of time but do not worry you will be able to understand everything about loops in JavaScript by the end of this tutorial. You can observe that in the above program using loops we have used the `document.write` statement only once but still, the output of the program will be the same as that of the iterative program where we have used the `document.write` statement 10 times. In computer programming, a loop is a sequence of instructions that is repeated until a certain condition is reached.

- An operation is done, such as getting an item of data and changing it, and then some condition is checked such as whether a counter has reached a prescribed number.

There are mainly two types of loops:

1. **Entry Controlled loops:** In these types of loops, the test condition is tested before entering the loop body. For Loops and While Loops are entry-controlled loops.
2. **Exit Controlled loops:** In these types of loops the test condition is tested or evaluated at the end of the loop body. Therefore, the loop body will execute at least once, irrespective of whether the test condition is true or false. The do-while loop is exit controlled loop.

Q5. Write a program in java script to print even number from 1 to 100.

```
<html>
<body>
<script type= "text/javascript">
<!--...
Var a=1;
For(a=1;a<100;a++)
{
If(a%2==0)
{
Document.write(a);
}
}
//-->
</script>
</body>
</html>
```

Q 6. Write a program to check whether a number is prime or not by taking input from user.

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>Check a number is prime or not</title>
</head>
<body>

</body>
</html>
```

Q7. Define array. How to add element in an array. Explain with the help of an example.

Define : JavaScript array is a single variable that is used to store different elements. It is often used when we want to store a list of elements and access them by a single variable. Unlike most languages where the array is a reference to the multiple variables, in JavaScript, an array is a single variable that stores multiple elements.

Element in array : The array datatype is one of the most commonly used datatypes when you're working with an ordered list of values. Each value is referred to as an element with a unique id. It stores elements of various datatypes that you can access through a single variable. In practice, an array could hold a list of users, and we might need to add an element(s) to the array after the last element, before the first element, or at any specified point in our array.

This article will show you how to insert an element into an array using JavaScript. In case you're in a hurry, here are the methods we'll be discussing in depth.

Q9. Describe associative array with the help of an example.

Associative arrays are basically objects in JavaScript where indexes are replaced by user defined keys. They do not have a length property like normal array and cannot be traversed using normal for loop.

```
<!DOCTYPE html>
<html lang="en" >
<head>
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-
scale=1.0" />
<title>Document</title>
<style>
  body {
    font-family: "Segoe UI", Tahoma, Geneva, Verdana, sans-
serif;
  }
  .result {
    font-size: 20px;
    font-weight: 500;
  }
</style>
</head>
<body>
<h1>Associative array in JavaScript</h1>
<div style="color: green;" class="result"></div>
<button class="Btn">CLICK HERE</button>
```

<h3>

Click on the above button to create a associative array and display it

</h3>

<script>

```
let resEle = document.querySelector(".result");
document.querySelector(".Btn").addEventListener("click", ()
=> {
    let arr = { Name: "Rohan", Class: 9, Age: 16 };
    for (i in arr) {
        resEle.innerHTML += "Key = " + i + " : Value = " + arr[i]
+ "<br>";
    }
});
</script>
</body>
</html>
```

Q 17. Write a Java Script code to display 5 elements of array in sorted order.

```
<html> <head>
<title> Array</title>
</head> <body> <script>
var arr1 = [ "Red", "red", "Blue", "Green"]
document.write("Before sorting arr1=" + arr1);
document.write("<br>After sorting arr1=" + arr1.sort());
</script> </body> </html>
```


Q10. Write a Java script to create person object with properties firstname, lastname, age, eyecolor, delete eyecolor property and display remaining properties of person object.

```
<html> <body> <script>
var person = {
  firstname:"John",
  lastname:"Doe",
  age:50,
  eyecolor:"blue"
};
delete person.eyecolor; //delete person eyecolor
document.write("After delete "+ person.firstname +" "+
person.lastname +" " +person.age +" " + person.eyecolor);
</script> </body> </html>
```

Q 11 Write a Java script that initializes an array called flowers with the names of 3 flowers. The script then displays array elements.

```
<html> <head>
<title>Display Array Elements</title>
</head> <body> <script>
var flowers = new Array();
flowers[0] = 'Rose ';
flowers[1] = 'Mogra';
flowers[2] = 'Hibiscus';
for (var i = 0; i < flowers.length; i++)
{
  document.write(flowers[i] + '<br>');
}
</script> </body> </html>
```

Q12 Write Javascript to call function from HTML.

```
<html> <head>
<title>Calling function from HTML</title>
<script>
function welcome()
{
alert("Welcome students");
}
function goodbye()
{
alert("Bye");
}
</script> </head>
<body onload="welcome()" onunload="goodbye()">
</body> </html>
```

Q 13. Write a Javascript to design a form to accept values for user ID & password

```
<html> <body>
<form name="login">
Enter Username<input type="text" name="userid"><br>
Enter Password<input type="password" name="pswrd">
<input type="button" onclick="display()" value="Display">
</form>
<script language="javascript">
function display()
{
document.write("User ID "+ login.userid.value + "Password :
"+login.pswrd.value);
}
</script> </body> </html>
```

Q 14. Explain getter and setter properties in Java script with suitable example

Property getters and setters

1. The accessor properties. They are essentially functions that work on getting and setting a value.
2. Accessor properties are represented by “getter” and “setter” methods. In an object literal they are denoted by get and set.

```
let obj = {  
  get propName() {  
    // getter, the code executed on getting obj.propName  
  },  
  set propName(value) {  
    // setter, the code executed on setting obj.propName =  
    value  
  }  
};
```

3. An object property is a name, a value and a set of attributes. The value may be replaced by one or two methods, known as setter and a getter.
4. When program queries the value of an accessor property, Javascript invoke getter method(passing no arguments). The return value of this method become the value of the property access expression.
5. When program sets the value of an accessor property. Javascript invoke the setter method, passing the value of right-hand side of assignment. This method is responsible for setting the property value.

Q 15. Write the use of charAt() and indexOf() with syntax and example

charAt()

The charAt() method requires one argument i.e is the index of the character that you want to copy.

Syntax:

```
var SingleCharacter = NameOfStringObject.charAt(index);
```

Example:

```
var FirstName = 'Bob';  
var Character = FirstName.charAt(0); //o/p B
```

indexOf()

The indexOf() method returns the index of the character passed to it as an argument.

If the character is not in the string, this method returns -1.

Syntax:

```
var indexValue = string.indexOf('character');
```

Example:

```
var FirstName = 'Bob';  
var IndexValue = FirstName.indexOf('o'); //o/p index as 1
```

Q16. Write a JavaScript that will replace following specified value with another value in string.

String = “I will fail” Replace “fail” by “pass”

```
<html> <head> <body> <script>  
var myStr = 'I will fail';  
var newStr = myStr.replace(fail, "pass");  
document.write(newStr);  
</script> </body> </head> </html>
```

Q 18. Explain open() method of window object with syntax and example.

The open() method of window object is used to open a new window and loads the document specified by a given URL.

```
MyWindow = window.open()
```

The open() method returns a reference to the new window, which is assigned to the MyWindow variable. You then use this reference any time that you want to do something with the window while your JavaScript runs.

A window has many properties, such as its width, height, content, and name—to mention a few. You set these attributes when you create the window by passing them as parameters to the open() method:

- The first parameter is the full or relative URL of the web page that will appear in the new window.
- The second parameter is the name that you assign to the window.
- The third parameter is a string that contains the style of the window.

We want to open a new window that has a height and a width of 250 pixels and displays an advertisement that is an image. All other styles are turned off.

Syntax: `MyWindow = window.open('webpage1.html', 'myAdWin', 'status=0, toolbar=0, location=0, menubar=0, directories=0, resizable=0, height=250, width=250')`

Example:

```
<html > <head>
<title>Open New Window</title>
<script >
function OpenNewWindow() {
MyWindow = window.open('webpage1.html', 'myAdWin',
'status=0, toolbar=0, location=0,menubar=0, directories=0,
resizable=0, height=250, width=250')
}
</script> </head> <body>
<FORM action=" " method="post">
<INPUT name="OpenWindow" value="Open Window"
type="button" onclick="OpenNewWindow()"/>
</FORM> </body> </html>
```

Q 19. Describe regular expression. Explain search () method used in regular expression with suitable example.

Regular Expression: A regular expression is very similar to a mathematical expression, except a regular expression tells the browser how to manipulate text rather than numbers by using special symbols as operators.

Search() method: str.search() method takes a regular expression/pattern as argument and search for the specified regular expression in the string. This method returns the index where the match found.

Example:

```
<html> <body> <script>
function myFunction() {
  // input string
  var str = "Good Morning!";
  // searching string with modifier i
  var n = str.search(/Morning/i);
  document.write(n + '<br>');
  // searching string without modifier i
  var n = str.search(/Morning/);
  document.write(n);
}
myFunction();
</script> </body> </html>
```

Q 20. Create a slideshow with the group of three images, also simulate next and previous transition between slides in your Java Script.

```
<html> <head> <script>
pics = new Array('1.jpg' , '2.jpg' , '3.jpg');
count = 0;
function slideshow(status)
{
if (document.images)
{
count = count + status;
if (count > (pics.length - 1))
{
count = 0;
}
if (count < 0)
{
count = pics.length - 1;
}
document.images[0].src = pics[count];
}
}
</script> </head> <body>

<br>
<input type="button" value="Next" onclick="slideshow(1)">
<input type="button" value="Back" onclick="slideshow(-1)">
</body> </html>
```


Q 21. Explain text rollover with suitable example.

You create a rollover for text by using the onmouseover attribute of the tag, which is the anchor tag. You assign the action to the onmouseover attribute the same way as you do with an

Error! Filename not specified.tag.

Let's start a rollover project that displays a flower titles.

Additional information about a flower can be displayed when the user rolls the mouse cursor over the flower name. In this example, the image of the flower is displayed. However, you could replace the flower image with an advertisement or another message that you want to show about the flower.

```
<html> <head>
<title>Rollover Text</title>
</head> <body>
<TABLE width="100%" border="0">
<TBODY> <TR vAlign="top"> <TD width="50"> <a>
<IMG height="92" src="rose.jpg"
width="70" border="0" name="cover">
</a> </TD> <TD>
<IMG height="1" src="" width="10">
</TD> <TD>
<A onmouseover= "document.cover.src='sunflower.jpg'">
<B><U>Sunflower</U></B>
</A> <BR>
<A onmouseover=
"document.cover.src='jasmine.jpg'">
<B><U>Jasmine</U></B>
</A> <BR>
<A onmouseover=
"document.cover.src='rose.jpg'">
<B><U>Rose</U></B>
</A> </TD> </TR> </TBODY> </TABLE> </body> </html>
```

Q 23. Write a script for creating following frame structure
FRUITS, FLOWERS AND CITIES are links to the webpage **fruits.html, flowers.html, cities.html** respectively. When these links are clicked corresponding data appears in **FRAME 3**.

```
<html> <head>
<title>Frame Demo</title>
</head> <body>
<table border="1">
<tr>
<td align="center" colspan="2">
FRAME 1
</td> </tr> <tr> <td>
FRAME 2
<ul> <li>
<a href="fruits.html" target="mainframe">FRUITS</a>
</li> <li>
<a href="flowers.html" target="mainframe">FLOWERS</a>
</li> <li>
<a href="cities.html" target="mainframe">CITIES</a>
</li> </ul> </td> <td>
FRAME 3<BR>
<iframe name="mainframe"> </iframe>
</td> </tr> </table> </body> </html>
```

Q 24. Write a javascript to create a pull-down menu with three options [Google, MSBTE, Yahoo] once the user will select one of the options then user will be redirected to that site.

```
<html> <head>
<title>HTML Form</title>
<script language="javascript" type="text/javascript">
function getPage(choice)
{
page=choice.options[choice.selectedIndex].value;
if(page != "")
{
window.location=page;
}
}
</script> </head> <body>
<form name="myform" action="" method="post">
Select Your Favourite Website:
<select name="MenuChoice" onchange="getPage(this)">
<option value="https://www.google.com">Google</option>
<option value="https://www.msbte.org.in">MSBTE</option>
<option value="https://www.yahoo.com">Yahoo</option>
</form> </body> </html>
```

Q 25. Describe how to evaluate checkbox selection. Explain with suitable example.

Evaluating Checkbox Selection:

- A checkbox is created by using the input element with the type="checkbox" attribute-value pair.
- A checkbox in a form has only two states (checked or unchecked) and is independent of the state of other checkboxes in the form. Check boxes can be grouped together under a common name.
- You can write javascript function that evaluates whether or not a check box was selected and then processes the result according to the needs of your application.
- Following example make use of five checkboxes to provide five options to the user regarding fruit.

```
<html> <head>
<title>HTML Form</title>
<script language="javascript" type="text/javascript">
function selection()
{
var x ="You selected: ";
with(document.forms.myform)
{ if(a.checked == true)
{ x+= a.value+ " ";
} if(b.checked == true)
{ x+= b.value+ " ";
} if(o.checked == true)
{ x+= o.value+ " ";
} if(p.checked == true)
{ x+= p.value+ " ";
} if(g.checked == true)
{ x+= g.value+ " ";
} document.write(x);
}}
```

```

</script> </head> <body>
<form name="myform" action="" method="post">
Select Your Favourite Fruits: <br>
<input type="checkbox" name="a" value="Apple">Apple
<input type="checkbox" name="b" value="Banana">Banana
<input type="checkbox" name="o" value="Orange">Orange
<input type="checkbox" name="p" value="Pear">Pear
<input type="checkbox" name="g" value="Grapes">Grapes
<input type="reset" value="Show" onclick="selection()">
</form> </body> </html> </form> </body> </html>

```

Q 22. Write a Java script to modify the status bar using on MouseOver and on MouseOut with links. When the user moves his mouse over the links, it will display “MSBTE” in the status bar. When the user moves his mouse away from the link the status bar will display nothing.

```

<html>
<head>
<title>JavaScript Status Bar</title></head>
<body>
<a href=" https://msbte.org.in/"
onMouseOver="window.status='MSBTE';return true"
onMouseOut="window.status="";return true">
MSBTE
</a>
</body>
</html>

```

Q 23. Write a Java script program which computes, the average marks of the following students then, this average is used to determine the corresponding grade.

```
<html> <head>
<title>Compute the average marks and grade</title>
</head> <body> <script>
var students = [['Summit', 80], ['Kalpesh', 77], ['Amit', 88],
['Tejas', 93],
['Abhishek', 65]];
var Avgmarks = 0;
for (var i=0; i < students.length; i++) {
Avgmarks += students[i][1];
}
var avg = (Avgmarks/students.length);
document.write("Average grade: " +
(Avgmarks)/students.length);
document.write("<br>");
if (avg < 60){
document.write("Grade : E");
}
else if (avg < 70) {
document.write("Grade : D");
}
else if (avg < 80) {
document.write("Grade : C");
} else if (avg < 90) {
document.write("Grade : B");
} else if (avg < 100) {
document.write("Grade : A");
}
</script> </body> </html>
```

Output (Optional)

Average grade: 80.6 Grade : B

Q 24. List ways of protecting your web page and describe any one of them.

1)Hiding your source code : The source code for your web page—including your JavaScript—is stored in the cache, the part of computer memory where the browser stores web pages that were requested by the visitor. A sophisticated visitor can access the cache and thereby gain access to the web page source code. However, you can place obstacles in the way of a potential peeker. First, you can disable use of the right mouse button on your site so the visitor can't access the View Source menu option on the context menu. This hides both your HTML code and your JavaScript from the visitor.

2)Disabling the right MouseButton : The following example shows you how to disable the visitor's right mouse button while the browser displays your web page. All the action occurs in the JavaScript that is defined in the tag of the web page.

The JavaScript begins by defining the BreakInDetected() function. This function is called any time the visitor clicks the right mouse button while the web page is displayed. It displays a security violation message in a dialog box whenever a visitor clicks the right mouse button The BreakInDetected() function is called if the visitor clicks any button other than the left mouse button.

3) Hiding JavaScript : You can hide your JavaScript from a visitor by storing it in an external file on your web server. The external file should have the .js file extension. The browser then calls the external file whenever the browser encounters a JavaScript element in the web page. If you look at the source code for the web page, you'll see reference to the external .js file, but you won't see the source code for the JavaScript.

4) Concealing E-mail address: Many of us have endured spam at some point and have probably blamed every merchant we ever patronized for selling our e-mail address to spammers. While e-mail addresses are commodities, it's likely that we ourselves are the culprits who invited spammers to steal our e-mail addresses. Here's what happens: Some spammers create programs called bots that surf the Net looking for e-mail addresses that are embedded into web pages, such as those placed there by developers to enable visitors to contact them. The bots then strip these e-mail addresses from the web page and store them for use in a spam attack. This technique places developers between a rock and a hard place. If they place their e-mail addresses on the web page, they might get slammed by spammers. If they don't display their e-mail addresses, visitors will not be able to get in touch with the developers.