



**Maratha Vidya Prasarak Samaj's**

**Rajarshi Shahu Maharaj Polytechnic, Nashik**

**Udoji Maratha Boarding Campus, Near Pumping Station, Gangapur Road, Nashik-13.**

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***Subject: - Client Side Scripting Language  
(22519)***



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# SYLLABUS

Chapter No.	Name of chapter	Marks With Option
1	Basics of JavaScript	14
2	Array, Function and String	22
3	Form and Event Handling	18
4	Cookies and Browser	24
5	Regular Expression, Rollover and Frames	14
6	Menus, navigation and web page protection	16
<b>Total Marks: -</b>		<b>108</b>



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# **BOARD THEORY PAPER PATTERN FOR CSS (22519)**

<b>Q.1</b>		<b>Attempt any FIVE</b>	<b>5*2=10</b>
	a)	Basics of JavaScript Programming	
	b)	Basics of JavaScript Programming	
	c)	Cookies and Browser Data	
	d)	Array, Function and String	
	e)	Basics of JavaScript Programming	
	f)	Form and Event Handling	
	g)	Cookies and Browser Data	
<b>Q.2</b>		<b>Attempt any THREE</b>	<b>3*4=12</b>
	a)	Basics of JavaScript Programming	
	b)	Basics of JavaScript Programming	
	c)	Cookies and Browser Data	
	d)	Array, Function and String	



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<b>Q.3</b>		<b>Attempt any THREE</b>	<b>3*4=12</b>
	a)	Array, Function and String	
	b)	Array, Function and String	
	c)	Array, Function and String	
	d)	Form and Event Handling	
<b>Q.4</b>		<b>Attempt any THREE</b>	<b>3*4=12</b>
	a)	Regular Expression, Rollover and Frames	
	b)	Regular Expression, Rollover and Frames	
	c)	Cookies and Browser Data	
	d)	Array, Function and String	
	e)	Menus, navigation and web page protection	
<b>Q.5</b>		<b>Attempt any TWO</b>	<b>2*6=12</b>
	a)	Form and Event Handling	
	b)	Cookies and Browser Data	
	c)	Regular Expression, Rollover and Frames	
<b>Q.6</b>		<b>Attempt any TWO</b>	<b>2*6=12</b>
	a)	Menus, navigation and web page protection	
	b)	Menus, navigation and web page protection	
	c)	Form and Event Handling	



# CLASS TEST - I

## PAPER PATTERN

**COURSE: - Client Side Scripting Language (22519)**

**PROGRAMME: - Computer Technology**

**Syllabus: -**

Unit No.	Name of the Unit	Course Outcome (CO)
1	Basics of JavaScript Programming	CO-519.01
2	Array, Function and String	CO-519.02
3	Form and Event Handling	CO-519.03

Q.1	Attempt any FOUR 4*2=8Marks	Course Outcome (CO)
a)	Basics of JavaScript Programming	CO-519.01
b)	Basics of JavaScript Programming	CO-519.01
c)	Form and Event Handling	CO-519.03
d)	Form and Event Handling	CO-519.03
e)	Basics of JavaScript Programming	CO-519.01
f)	Array, Function and String	CO-519.02
Q.2	Attempt any THREE 3*4=12 Marks	
a)	Form and Event Handling	CO-519.03
b)	Array, Function and String	CO-519.02
c)	Form and Event Handling	CO-519.03



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# CLASS TEST - II

## PAPER PATTERN

**COURSE: - Client Side Scripting Language (22519)**

**PROGRAMME: - Computer Technology**

**Syllabus: -**

Unit No.	Name of the Unit	Course Outcome (CO)
4	Cookies and Browser Data	CO-519.04
5	Regular Expression, Rollover and Frames	CO-519.05
6	Menus, navigation and web page protection	CO-519.06

		Course Outcome (CO)
<b>Q.1</b>	<b>Attempt any FOUR</b> <span style="float: right;"><b>4*2=8Marks</b></span>	
a)	Cookies and Browser Data	CO-519.04
b)	Regular Expression, Rollover and Frames	CO-519.05
c)	Menus, navigation and web page protection	CO-519.06
d)	Menus, navigation and web page protection	CO-519.06
e)	Regular Expression, Rollover and Frames	CO-519.05
f)	Cookies and Browser Data	CO-519.04
<b>Q.2</b>	<b>Attempt any THREE</b> <span style="float: right;"><b>3*4=12 Marks</b></span>	
a)	Cookies and Browser Data	CO-519.04
b)	Regular Expression, Rollover and Frames	CO-519.05
c)	Menus, navigation and web page protection	CO-519.06



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# **COURSE OUTCOME**

## **(CO)**

**COURSE: - Client Side Scripting Language (22519)**

**PROGRAMME: - Computer Technology**

<b>CO. NO.</b>	<b>Course Outcome</b>
<b>CO- 564.01</b>	Create interactive web pages using program flow control structure
<b>CO- 564.02</b>	Implement Arrays and functions in Java script.
<b>CO- 564.03</b>	Create event based web forms using Java script
<b>CO- 564.04</b>	Use JavaScript for handling cookies
<b>CO- 564.05</b>	Create interactive webpage using regular expressions for validations.
<b>CO- 564.06</b>	Create Menus and navigations in web Pages





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# 1. Basics of JavaScript Programming

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**Position in Question Paper**

**Total Marks-12**

Q.1. a) 2-Marks.

Q.1. b) 2-Marks.

Q.1. e) 2-Marks.

Q.2. a) 4-Marks.

Q.2. b) 4-Marks.

---

## Descriptive Question

1. Explain any two/ four features of JavaScript?
2. Write a JavaScript to display Welcome message in JavaScript.
3. Explain the term – Object Name, Property, Method, Dot syntax, main event.
4. Explain six types of values in JavaScript.
5. What is conditional operator in JavaScript?
6. List the different types of operator in JavaScript. Describe any one in details.
7. List the different types of popup box. Explain any of it with example.
8. Write a JavaScript to display squares of 1 to 10 numbers using while loop.
9. Write a JavaScript program that accept two integers and display the larger.
10. Write a JavaScript conditional statement to sort three numbers. Display an alert box to show the result.
11. Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen.
12. Write a JavaScript conditional statement to find the largest of five numbers.
13. Write a JavaScript program to check from two given integers, if one is positive and one is negative.
14. Write a JavaScript program check if a given positive number is a multiple of 3 or a multiple of 7.
15. Write a JavaScript program to reverse a given string.
16. Write a JavaScript program to check number is Armstrong or not.
17. Write a JavaScript to display squares of 1 to 10 numbers using for loop.
18. Write a JavaScript program to find the area of a triangle where lengths of the three of





its sides are 5, 6, 7.

19. Write a JavaScript program to construct the following pattern, using a nested for loop.

```
*
* *
* * *
* * * *
* * * * *
```

## MCQ Question

(Total number of Question=Marks\*3=12\*3=36)

Note: Correct answer is marked with **bold**.

1. HTML tag under which one can write the JavaScript code?

- a) <javascript>
- b) <scripted>
- c) **<script>**
- d) <js>

2. JavaScript is \_\_\_\_\_ language.

- a) a compiled
- b) **an interpreted**
- c) both a and b
- d) none

3. Which of the following is not a valid JavaScript variable name?

- a) **2names**
- b) first\_and\_last\_names
- c) FirstAndLast
- d) None of the above

4. What is the correct JavaScript syntax to write "Hello World"?

- a) System.out.println("Hello World")
- b) println ("Hello World")
- c) **document.write("Hello World")**
- d) response.write("Hello World")

5. A dot is used to

- a) Identify a JavaScript comment
- b) Separate lines of a JavaScript
- c) End a JavaScript statement
- d) **Separate an object name from either a property or a method**

6. Which of the following is the correct syntax to display "Letsfindcourse" in an alert box using JavaScript?

- a) alert-box("Letsfindcourse");
- b) confirm("Letsfindcourse");
- c) msgbox("Letsfindcourse");
- d) **alert("Letsfindcourse");**

7. Which of the following is the structure of an if statement?

- a) if (conditional expression is true) thenexecute this codeend if



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- b) if (conditional expression is true)execute this codeend if  
c) **if (conditional expression is true) {then execute this code>->}**  
d) if (conditional expression is true) then {execute this code}

8. Built-in method returns the length of the string?

- a) **length()** c) index()  
b) size() d) None of the above.

9. The following function of String object is used to find a match between a regular expression and a string, and to replace the matched substring with a new substring?

- a) concat() c) **replace()**  
b) match() d) search()

10. Predict the output of the following JavaScript code? var arr=[1,2,3]; var rev=arr.reverse(); document.writeln(rev);

- a) 1,2,3 c) 3  
b) **3,2,1** d) 1

11. Which of the following is the correct output for the following JavaScript code:

```
var grade='D';
var result;
switch(grade)
{
case'A':
    result+="10";
case'B':
    result+=" 9";
case'C':
    result+=" 8";
case 'D'
result+=" 6";
default:
    result+=" 0";
}
document.write(result);
```

- a) 10 c) **33**  
b) 6 d) 0



12. What is the role of the "continue" keyword in the following piece of JavaScript code?

```
while (x !=0)
{
  if(x ==1)
  continue;
  else
    x++;
}
```

- a) The continue keyword restarts the loop
- b) The continue keyword skips the next iteration
- c) The "continue" keyword breaks out of the loop
- d) It is used for skipping the rest of the statements in that particular iteration**

13. What are the three important manipulations for a loop on a loop variable?

- a) Updation, Incrementation, Initialization
- b) Initialization, Testing, Incrementation
- c) Testing, Updation, Testing
- d) Initialization, Testing, Updation**

14. Which of the following operator contains JavaScript that assigns a value to a variable based on some condition?

- a) Assignment operator
- b) Bitwise Operator
- c) **Conditional operator**
- d) Logical Operator

15. What are the types of Pop up boxes available in JavaScript?

- a) Prompt
- b) Alert
- c) Confirm
- d) All of the above**

16. Which one of the following operator is used to check whether a specific property exists or not:

- a) Exists
- b) exist
- c) within
- d) in**

17. Which of the following variables takes precedence over the others if the names are the same?

- a) Global variable
- b) **The local element**
- c) The two of the above
- d) None of the above

18. The "var" and "function" are \_\_\_\_\_

- a) Keywords
- b) **Declaration statements**
- c) Data types
- d) Prototypes

19. Is it possible to declare a variable in Java Script along its type?









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- client
- b) **minimize storage requirements on the web server**
40. JavaScript Code can be called by using
- a) RMI  
b) Triggering Event
41. JavaScript can be written
- a) **directly into JS file and included into HTML**  
b) directly on the server page
42. Which of the following Attribute is used to include External JS code inside your HTML Document
- a) **src**  
b) ext
- d) none of the mentioned
- c) Preprocessor  
d) **Function/Method**
- c) directly into HTML pages  
d) all of the mentioned
- c) script  
d) link



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## 2. Array, Function and String

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**Position in Question Paper**

**Total Marks-14**

**Q.1. d) 2-Marks.**

**Q.2. d) 4-Marks.**

**Q.3. a) 4-Marks.**

**Q.3. b) 4-Marks**

**Q.3. c) 4-Marks**

**Q.4. d) 4-Marks**

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### **Descriptive Question**

1. Define array.
2. How to declare array in JavaScript.
3. Write a JavaScript for sorting the array elements.
4. Explain the use of join () function with examples.
5. Explain the use of push and pop functions.
6. Write a short note on – associative array in JavaScript.
7. Write syntax for defining the function.
8. Explain the method of calling a function from HTML.
9. What is string? Enlist some commonly used methods for manipulating String.
10. Write a JavaScript to convert string to number.
11. Differentiate between concat() and join() methods of array object.
12. Write a JavaScript function to count the number of vowels in a given String.
13. Write a JavaScript that find and displays number of duplicate values in an array.
14. Write a function that prompts the user for a color and uses what they select to set the background color of the new webpage opened
15. Explain the scope of variable with the help of programming example
16. How to retrieve a position of desired word from the string

### **MCQ Question**









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- a) 1, 2, 3, 4  
b) 2, 3, 4  
c) 1, 3, 4  
d) error

17. Which of the following function of String object returns the index within the calling String object of the first occurrence of the specified value?

- a) substr()  
b) search()  
c) lastIndexOf()  
d) **indexOf()**

18. Which of the following function of String object returns the calling string value converted to lower case?

- a) toLocaleLowerCase()  
b) **toLowerCase()**  
c) toString()  
d) substring()

19. The function definition in JavaScript begins with

- a) **Identifier and Parantheses**  
b) Return type and Identifier  
c) Return type, Function keyword, Identifier and Parantheses  
d) Identifier and Return type

20. The ..... method in JavaScript returns sub-array of the specified array.

- a) Array.join()  
b) Array.concat()  
c) **Array.slice()**  
d) Array.splice()

21. Which of the following function of Array object applies a function simultaneously against two values of the array (from right-to-left) as to reduce it to a single value?

- a) pop()  
b) reduce()  
c) push()  
d) **reduceRight()**

22. What is the output of following Javascript?

```
var a = 'letsfind';  
var b = 'course';  
var c = a/b;  
document.write(c);
```

- a) letsfindcourse  
b) **letsfind/course**  
c) NaN  
d) None of the above

23. How ++ works in Javascript? Find output of below Javascript code.

```
var a = 1;
```





`var count = [1,,3];`

What is the observation made?

- a) **The omitted value takes “undefined”**
- b) This results in an error
- c) This results in an exception
- d) None of the mentioned

31. Consider the following code snippet

```
var a1 = [,,];
```

```
var a2 = new Array(3);
```

0 in a1

0 in a2

The result would be

- a) **true false**
- b) false true
- c) true true
- d) false true

32. The `pop()` method of the array does which of the following task ?

- a) **decrements the total length by 1**
- b) increments the total length by 1
- c) prints the first element but no effect on the length
- d) None of the mentioned

33. Consider the following code snippet :

```
if (!a[i]) continue ;
```

What is the observation made ?

- a) Skips the undefined elements
- b) Skips the non existent elements
- c) Skips the null elements
- d) **All of the mentioned**

34. What will happen if `reverse()` and `join()` methods are used simultaneously ?

- a) **Reverses and stores in the same array**
- b) Reverses and concatenates the elements of the array
- c) Reverses
- d) All of the mentioned

35. Consider the following code snippet :

```
var a = [1,2,3,4,5];
```

```
slice(0,3);
```

What is the possible output for the above code snippet ?

- a) **Returns [1,2,3]**
- b) Returns [4,5]
- c) Returns [1,2,3,4]
- d) Returns [1,2,3,4,5]

36. Consider the following code snippet :

```
var a = [];
```







## 3. Form and Event Handling

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**Position in Question Paper**

**Total Marks-10**

**Q.1. f) 2-Marks.**

**Q.3. d) 4-Marks.**

**Q.5. b) 6-Marks.**

**Q.6. c) 6-Marks.**

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### Descriptive Question

1. What is form.
2. Explain two uses of forms.
3. Explain in brief the properties and methods used in form. 4] How will you create password field in a HTML form ?
4. Explain the use of button element with the help of example
5. What is the difference between group of checkbox buttons and group of radio buttons .
6. Design a simple HTML form for filling the information for registration of a student.
7. Write a form to make login and password.
8. What is event handler. Give an example of event handler in JavaScript. 10] Explain various commonly used mouse Events in JavaScript.
9. Explain any two keyboard events in JavaScript.
10. Explain how to change attribute values dynamically.
11. Write a JavaScript to create three categories - Fruit, Flower and Colour. 14] Based on the selection of category, the item, in the option list must get changed.
12. What is intrinsic function?
13. How to disable particular element on the form.
14. What is the use of read-only element in JavaScript.





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## MCQ Question

(Total number of Question=Marks\*3=10\*3=30)

Note: Correct answer is marked with **bold**

1. The following event fires when the form element loses the focus: <button>, <input>, <label>, <select>, <textarea>?

- a) onfocus
- b) onblur**
- c) onclick
- d) ondblclick

2. The following is true?

- a) If onKeyDown returns false, the key-press event is cancelled**
- b) If onKeyPress returns false, the key-down event is cancelled
- c) If onKeyDown returns false, the key-up event is cancelled
- d) If onKeyPress returns false, the key-up event is cancelled

3. The property that is triggered in response to JavaScript errors?

- a) onexception
- c) onerror**
- b) onmessage
- d) onclick

4. Event is fired when a document and all of its external resources are fully loaded and displayed to the user?

- a) Window
- b) Load**
- c) Element
- d) Handler

5. The opposite of the load event in JavaScript is

- a) dontload
- d) unload**
- b) postload
- c) preload

6. The event that can be fired on any scrollable document element is

- a) Window
- c) Load**
- b) Scroll
- d) Unload

7. Match the following JavaScript function with their description. i) onblur a) script runs when the element Changes ii) onmouseup b) script runs when the form is reset iii) onchange c) script runs when the element lost focus. iv) onreset d) script runs when the mouse button is release

- a) i-d, ii-c, iii-a, iv-b
- c) i-c, ii-d, iii-a, iv-b**
- b) i-b, ii-c, iii-a, iv-d
- d) i-a, ii-c, iii-d, iv-b

8. Which event is fired when a document and all of its external resources are fully loaded and displayed to the user?

- a) Window
- b) Load**
- c) Element
- d) Handler



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9. Which property is used to add space inside the text field?
- a) **padding**
  - b) margin
  - c) number
  - d) password
10. The events that are not triggered directly by user activity are called
- a) Device-independent input events
  - b) Device-dependent input events
  - c) User interface events
  - d) **State change events**
11. Which are the events that have default actions that can be canceled by event handlers?
- a) Submit and form-related events
  - b) Reset and form-related events
  - c) **Submit and reset events**
  - d) None of the mentioned
12. When are the mouse events generated?
- a) When user clicks the mouse over a document
  - b) **When user moves over a document**
  - c) All of the mentioned
  - d) None of the mentioned
13. When is the mouseover event fired?
- a) **When mouse is moved over a new element**
  - b) When mouse is clicked
  - c) When mouse is both moved and clicked
  - d) None of the mentioned
14. Which object is passed as the argument to handlers for keydown, keyup, and keypress events?
- a) **KeyboardEvent**
  - b) Key Event
  - c) Mouse Event
  - d) Alphabet Event
15. Which of the following is not used with password attribute?
- a) name
  - b) size
  - c) maxlength
  - d) **min**
16. Which element is used to create multi-line text input?
- a) text
  - b) **textarea**
  - c) submit
  - d) radio button
17. Which attribute is not used for the radio type?
- a) name
  - b) value
  - c) checked
  - d) **selected**
18. Which attribute is used with <select> element?
- a) **multiple**
  - b) selected
  - c) name
  - d) value
19. What among the following is an appropriate event handler for input text among the below options ?
- a) onclick
  - b) onmouseover
  - c) onkeyup
  - d) onfocus



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- b) **onchange** d) onblur
20. The ..... attribute is only valid on a handful or HTML elements, including forms, form elements, <iframe> and <img> elements.
- a) id c) tag  
b) **name** d) class
21. Which of the following is true?
- a) **If onKeyDown returns false, the key-press event is cancelled**  
b) If onKeyPress returns false, the key-down event is cancelled  
c) If onKeyDown returns false, the key-up event is cancelled  
d) If onKeyPress returns false, the key-up event is canceled
22. Syntax for creating a RegExp object:
1. var txt=new RegExp(pattern,attributes);  
2. var txt=/pattern/attributes;
- Which of the above mentioned syntax will correct?
- a) 1 only c) **Both 1 and 2**  
b) 2 only d) None of the above
23. If para1 is the DOM object for a paragraph, what is the correct syntax to change the text within the paragraph?
- a) para1="New Text"  
b) **para1.value="New Text";**  
c) para1.firstChildValue= "New Text";  
d) para1.nodeValue="New Text";
24. The syntax of Eval is \_\_\_\_\_
- a) [objectName.]eval(numeric) c) [EvalName.]eval(string)  
b) **[objectName.]eval(string)** d) [EvalName.]eval(numeric)
25. The \_\_\_\_\_ method of an Array object adds and/or removes elements from an array.
- a) Reverse c) Slice  
b) Shift d) **Splice**
26. Which tag(s) can handle mouse events in Netscape?
- a) **<IMG>** c) <BR>  
b) <A> d) <span>
27. Consider the following code snippet
- ```
const pi=3.14;  
var pi=4;  
console.log(pi);
```



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What will be the output for the above code snippet?

- a) **This will flash an error**
  - b) Prints 4
  - c) Prints 3.14
  - d) Ambiguity
28. What is the default value of the asyc attribute?
- a) 0
  - b) 1
  - c) False
  - d) **True**
29. What is the purpose of the Attr object in the HTML DOM?
- a) Used to focus on a particular part of the HTML page
  - b) **HTML Attribute**
  - c) Used to arrange elements
  - d) None of the mentioned
30. Which among the following POSIX signals generate events?
- a) SIGDOWN
  - b) SIGFLOAT
  - c) **SIGINT**
  - d) SIGSHORT



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# 4. Cookies and Browser Data

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**Position in Question Paper**

**Total Marks- 8**

**Q.1. c) 2-Marks.**

**Q.1. g) 4-Marks.**

**Q.2. c) 4-Marks.**

**Q.4. c) 4-Marks.**

**Q.5. c) 6-Marks.**

---

## **Descriptive Question**

1. What is cookies?
2. Explain how to create cookies in JavaScript.
3. Explain how to read cookies in JavaScript.
4. Write a JavaScript to delete the cookie.
5. Explain the functions getMonth( setMonth(), toGMTString())
6. Explain the syntax for opening a window.
7. Explain the use of focus() method for window object.
8. Write a JavaScript to change the contents of the newly created window.
9. Write a JavaScript to open multiple windows at a time.
10. What is the use of setTimeout () function? Write a JavaScript to illustrate it.
11. What is the use of setInterval() function? Write a JavaScript to illustrate it.
12. Write a JavaScript to display the pathname of the web page using window.location object.



## MCQ Question

(Total number of Question=Marks\*3=8\*3=24)

Note: Correct answer is marked with **bold**

1. The Cookie manipulation is done using which property?

- a) **cookie**
- b) cookies
- c) manipulate
- d) manipulate cookie

2. Cookies are a plain text data record having the following variable length fields. i) Expires ii) Starts iii) Domain iv) Secure

- a) i, ii and iii only
- b) i, iii and iv only
- c) **i, ii and iv only**
- d) All i, ii, iii, and iv

3. identifier used to represent a web browser window or frame is

- a) frames
- b) **window**
- c) location
- d) frame

4. Property in the Window object is used to refer to a Location object is

- a) position
- b) area
- c) window
- d) **location**

5. The property that represents the content displayed in the window is

- a) **document**
- b) content
- c) window
- d) frame

6. Document element based on the value of its id attribute is done using

- a) getElementById()
- b) **getElementById()**
- c) both getElementById() and getElementById()
- d) getElement

7. For simple cookies, which field is typically omitted?

- a) name
- b) expiration date
- c) **pathname of the web page writing the cookie**
- d) value

8. The cookie string is actually written to:

- a) hard drive on the server
- b) browser
- c) **both A and B**
- d) none









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- a) Make the event sleep  
b) **Register a function to be invoked after a certain time**
- c) Invoke an event after a certain time  
d) Time for iteration
17. The word "document" mainly refers to \_\_\_\_\_
- a) Dynamic Information  
b) **Static Information**  
c) Both Dynamic and Static Information  
d) Temporary information
18. Which object is the main entry point to all client-side JavaScript features and APIs?
- a) Standard  
b) Location  
c) **Window**  
d) Position
19. Which property is used to obtain browser vendor and version information?
- a) modal  
b) version  
c) browser  
d) **navigator**
20. Which function among the following lets to register a function to be invoked repeatedly after a certain time?
- a) setTimeout()  
b) setTotaltime()  
c) **setInterval()**  
d) none of the mentioned
21. Which of the following explains Cookies nature?
- a) Non Volatile  
b) Volatile  
c) Intransient  
d) **Transient**
22. Which of the following defines the Cookie visibility?
- a) domain Path  
b) **local & session storage**  
c) server storage  
d) transient Path
23. Which of the following can be used to configure the scope of the Cookie visibility?
- a) path  
b) domain  
c) **both path and domain**  
d) server
24. How can you set a Cookie visibility scope to **localStorage**?
- a) /  
b) %  
c) \*  
d) //
25. Which of the following is a boolean cookie attribute?
- a) bool  
b) **secure**  
c) lookup  
d) domain



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26. What is the constraint on the data per cookie?

a) 2 KB

c) 4 KB

b) 1 KB

d) 3 KB



## 5. Regular Expression, Rollover and Frames

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**Position in Question Paper**

**Total Marks-14**

Q.4. a) 4-Marks.

Q.4. b) 4-Marks.

Q.5. c) 6-Marks.

---

### **Descriptive Question**

1. Define the term -Regular expression.
2. Construct regular expression for validating the phone number in following format only :  
(nnn)-nnnn-nnnn OR nnn.nnnn.nnnn
3. Write a Java program that checks whether the string entered by the user Contains digits or not.
4. Explain any four commonly used methods in regular expression.
5. Write a JavaScript program to create rollover effect for three images.
6. How will you specify the range of characters using a regular expression?
7. Give the regular expression for matching digits and non-digits.
8. Explain any four regular expression object properties
9. What is frame?
10. Explain frameset tag along with the attributes used in it.
11. Write a JavaScript to display frames without border.
12. Write a JavaScript to change the contents of one frame from another frame.
13. WriteJavaScript to change the label of button element present in frame2 fromframe.
14. What is rollover?
15. What are the methods used most commonly during the rollover?
16. Write a JavaScript in which when user rolls over the name of fruit, thecorresponding image should be displayed. For instance -if user rolls over thetext "Mango"; the image of Mango should be displayed.
17. Write a JavaScript in which when user rolls over the name of fruit, thecorresponding image should be displayed. Along with the appropriate imagedisplay, additional window should pop up displaying the benefit of each fruit.



18. Design the frameset tag for following frame layout

|        |
|--------|
| FRAME1 |
| FRAME2 |
| FRAME3 |

## MCQ Question

(Total number of Question=Marks\*3=14\*3=42)

Note: Correct answer is marked with **bold**

1. Which among the following regular expression specifies that password should contain at least one capital letter or one digit.

- a) `./.*[A-Z].*/.test(password) && ./.*[0-9].*/.test(password)`
- b) `./.*[A-Z].*/.test(password) || ./.*[0-9].*/.test(password)`**
- c) `./.*[A-Z][0-9].*/.test(password)`
- d) None of the above

2. Which of the following string will match the RegEx `"((d).(dd))$"`?

- a) 223.123
- b) 22.123
- c) **223.12**
- d) 2.2

3. Consider the following JavaScript statement containing regular expressions and check if the pattern matches?

```
var text = "lestfindcourse: 1, 2, 3";  
var pattern = /d+/g;
```

- a) `text==pattern`
- b) `text.equals(pattern)`
- c) `text.test(pattern)`
- d) `pattern.test(text)`**

4. The regular expression to match any one character not between the brackets is

- a) `[...]`
- b) `[^]`
- c) `[^...]`
- d) `[\\D]`**

5. What would be the result of the following statement in JavaScript using regular expression methods?

- a) Returns `["123""456""789"]`
- b) **Returns `["123","456","789"]`**
- c) Returns `[1,2,3,4,5,6,7,8,9]`
- d) Throws an exception



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6. What will be the output of the following JavaScript code?  
System.out.println( Pattern.matches("[lfc]", "lets") );
- a) true  
b) **false**  
c) undefined  
d) 1
7. What will be the output of the following JavaScript code?  
System.out.println( Pattern.matches("[lfc]?", "l") );
- a) **true**  
b) false  
c) undefined  
d) 1
8. What will be the output of the following JavaScript code?  
System.out.println( Pattern.matches("\\d", "9") );
- a) **true**  
b) false  
c) undefined  
d) 9
9. What will be the output of the following JavaScript code?  
System.out.println( Pattern.matches("[^lfc]", "letsfind") );
- a) true  
b) **false**  
c) undefined  
d) 1
10. What will be the output of the following JavaScript code?  
System.out.println( Pattern.matches("[lfc]+", "f") );
- a) **true**  
b) false  
c) undefined  
d) 1
23. Which of the following keys are not set to true when the keyboard modifier keys are held down?
- a) altKey  
b) ctrlKey  
c) metaKey  
d) **delkey**
24. How to detect and respond to mouse drags?
- a) Registering a mouseover handler  
b) Releasing a mousedown handler  
c) **Registering a mousedown handler**  
d) Releasing a mouseover handler
25. When is the mouseover event fired?
- a) **When mouse is moved over a new element**  
b) When mouse is clicked  
c) When mouse is both moved and clicked  
d) When mouse is released
26. When is the mouseout event fired?
- a) **When mouse is no longer over an element**  
c) When mouse is hovered



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- b) When mouse is over an element  
d) When mouse is clicked
27. The focus and blur events are also part of \_\_\_\_\_  
a) Element events  
b) Handler events  
c) **Window events**  
d) Scroll events
28. The element that can also register handlers for load and error events is \_\_\_\_\_  
a) html  
b) **img**  
c) body  
d) form
29. The events that are emulated by the jQuery library are \_\_\_\_\_  
a) focusarea and focusover  
b) **focusall and focusnone**  
c) focusdown and focusup  
d) focusin and focusout
30. Which event is triggered sooner when the document and its elements are ready to manipulate?  
a) DOMContentLoaded  
b)readystatechange  
c) **Both DOMContentLoaded & readystatechange**  
d) Statechange
31. The '\$' present in the RegExp object is called a \_\_\_\_\_  
a) character  
b) matcher  
c) **metacharacter**  
d) metadata
32. Consider the following JavaScript statement containing regular expressions and check if the pattern matches?  
**var** text = "testing: 1, 2, 3";  
**var** pattern =  $\wedge d+ / g$ ;  
a) text==pattern  
b) text.equals(pattern)  
c) text.test(pattern)  
d) **pattern.test(text)**
33. The regular expression to match any one character not between the brackets is  
a) [...]   
b) [^]   
c) [^...]   
d) [D]
34. What does  $/[\wedge()]*$  regular expression indicate?  
a) Match one or more characters that are not open parenthesis  
b) Match zero or more characters that are open parenthesis  
c) **Match zero or more characters that are not open parenthesis**  
d) Match one or more characters that are open parenthesis
35. What will be the result when non greedy repetition is used on the pattern  $/a+?b/?$   
a) **Matches the letter b preceded by the fewest number of a's possible**  
b) Matches the letter b preceded by any number of a





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- c) Matches letter a preceded by letter b, in the stack order  
d) Matches letter a present in the string
36. What does the subexpression `/java(script)?/` result in?  
a) **it matches “java” followed by the optional “script”**  
b) It matches “java” followed by any number of “script”  
c) It matches “java” followed by a minimum of one “script”  
d) It matches “java” followed by a single “script”
37. What is the most essential purpose of parentheses in regular expressions?  
a) Define pattern matching techniques  
**b) Define subpatterns within the complete pattern**  
c) Define portion of strings in the regular expression  
d) matching the complete string
38. The method that performs the search-and-replace operation to strings for pattern matching is \_\_\_\_\_  
a) `searchandreplace()`  
b) `add()`  
c) `edit()`  
**d) `replace()`**
39. What would be the result of the following statement in JavaScript using regular expression methods?  
a) Returns `[“123””456””789”]`  
b) **Returns `[“123”,”456”,”789”]`**  
c) Returns `[1,2,3,4,5,6,7,8,9]`  
d) Throws an exception
40. What will be the output of the following JavaScript code?  
`System.out.println(Pattern.matches("[amn]?", "a"));`  
a) **TRUE**  
b) FALSE  
c) undefined  
d) bcd
41. What will be the output of the following JavaScript code?  
a) **TRUE**  
b) FALSE  
c) undefined  
d) 1
42. What will be the output of the following JavaScript code?  
`System.out.println(Pattern.matches("[adf]+", "a"));`  
a) **TRUE**  
b) FALSE  
c) undefined  
d) 0
43. What will be the output of the following JavaScript code?  
`System.out.println(Pattern.matches("[^abc]", "aemngq"));`  
a) TRUE  
b) **FALSE**  
c) undefined  
d) 1





## 6. Menu, Navigation and Web page protection

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**Position in Question Paper**

**Total Marks-12**

**Q.4. e) 4-Marks.**

**Q.6. a) 6-Marks.**

**Q.6. b) 6-Marks.**

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### Descriptive Question

1. What is the use of status bar in a web application?
2. State the method to put message in web browser status bar?
3. Write a JavaScript program that create a scrolling text on the status line of a window.
4. Write a program to display a javascript status bar message whenever your users hover over your hyperlinks.
5. Write a JavaScript to scroll the status bar message horizontally
6. What is banner ad?
7. Develop a JavaScript Program to Create Rotating Banner Ads with URL Links.
8. Write a JavaScript to create and display banner
9. Write a JavaScript that illustrates linking of banner advertisement to URL
10. What is slide show?
11. Write a JavaScript to show the creation of slide show,
12. Explain with suitable example how to create a pull down menu.
13. What is dynamic menu?
14. How to create dynamically changing menu in JavaScript.
15. What is float menu?
16. Explain chain select menu with necessary illustration.
17. What is tab menu? Explain it with diagrammatic representation.
18. Explain folding tree menu.
19. What is the use of scrollable menu?
20. Create a slideshow with the group of four images, also simulate the next and previous transition between slides in your JavaScript.
21. List ways of protecting your webpage and describe any one of them.



22. Write a JavaScript that disables the right click button and displays the message 'Right click button is 'disable'.
23. Write a short note on -Frameworks of JavaScript and its applications.

## **MCO Question**

**(Total number of Question=Marks\*3=12\*3=36)**

Note: Correct answer is marked with **bold**

1. In which part does the form validation occur?
  - a) Client
  - b) Server**
  - c) Both Client and Server
  - d) User side
2. What would happen if the data in the client had been wrong?
  - a) Sends back the data
  - b) Waits for correction
  - c) Sends back the data and Waits for correction**
  - d) Returns the data instantly
3. What is the purpose of the basic validation?
  - a) Data correctness
  - b) Mere data existence**
  - c) Both Data correctness and Mere data existence
  - d) Data modification
4. What is the purpose of data format validation?
  - a) Data correctness**
  - b) Mere data existence
  - c) Both Data correctness and Mere data existence
  - d) Data modification
5. Which is the function that is called to validate a data?
  - a) validate()
  - b) valid()
  - c) validation()
  - d) no predefined function for data validation**
6. How to find the index of a particular string?
  - a) position()
  - b) index()
  - c) indexOf()**
  - d) positionof()



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7. How do you focus a particular part of the HTML page in JavaScript?
- a) `hover()`
  - b) **`focus()`**
  - c) `on()`
  - d) `focuson()`
8. Which of the following is the child object of the JavaScript **navigator**?
- a) `Navicat`
  - b) **`Plugins`**
  - c) `NetRight`
  - d) `Plugs`
9. Which of the following is not the properties of a plug-in entry?
- a) `name`
  - b) `filename`
  - c) `mimeTypes`
  - d) **`value`**
10. What is the purpose of the **mimeTypes** property of a plug-in entry?
- a) Contains MIME properties
  - b) Contains MIME sizes
  - c) **Contains MIME types**
  - d) Contains MIME methods
11. The main purpose of JavaScript in web browser is to \_\_\_\_\_
- a) **Creating animations and other visual effects**
  - b) User Interface
  - c) Visual effects
  - d) User experience
12. A JavaScript program can traverse and manipulate document content through \_\_\_\_\_
- a) Element Object
  - b) Document Object
  - c) **Both Element and Document Object**
  - d) Data object
13. The behaviour of the document elements can be defined by \_\_\_\_\_
- a) Using document object
  - b) **Registering appropriate event handlers**
  - c) Using element object
  - d) Using data element
14. The service(s) that enables networking through scripted HTTP requests is \_\_\_\_\_
- a) `XMLHttpResponse`
  - b) `XMLRequest`
  - c) **`XMLHttpRequest`**
  - d) `XMLHttps`
15. The HTML5 specification does not includes \_\_\_\_\_
- a) Data storage
  - b) Graphics APIs
  - c) Other APIs for web apps
  - d) **Networking**
16. Which of the following is not an advanced services?
- a) Data storage
  - c) `XMLHttpRequest` object



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- b) Networking d) **Graphics APIs**
17. JavaScript code between a pair of “script” tags are called \_\_\_\_\_
- a) Non-inline c) Referenced  
b) External d) **Inline**
18. Client-side JavaScript code is embedded within HTML documents in \_\_\_\_\_
- a) A URL that uses the special javascript:encoding  
b) A URL that uses the special javascript:stack  
c) **A URL that uses the special javascript:protocol**  
d) A URL that uses the special javascript:code
19. What is the programming philosophy that argues that content and behaviour should as much as possible be kept separate?
- a) **Unobtrusive JavaScript** c) Inherited JavaScript  
b) Obtrusive JavaScript d) Modular JavaScript
20. Which of the following communicates with server-side CGI scripts through HTML form submissions and can be written without the use of JavaScript?
- a) Static Web Pages c) Conditional Web Pages  
b) **Interactive Web Pages** d) All web pages
21. Which of the following values are accepted by the float Property?
- a) left c) none  
b) right d) **all of the mentioned**
22. Which of the following property is used to control the behavior of floating elements?
- a) format c) **clear**  
b) clean d) remove
23. In what direction does float will work?
- ```
img {  
    float: right;  
}
```
- a) left c) bottom  
b) top d) **right**
24. Which of the following property allows elements to be offset, rotated, scaled, and skewed in a variety of different ways?
- a) transform-style c) transition  
b) **transform** d) transform-origin
25. Which of the following property is used to define how nested items are rendered in a 3-D space, the choice being either flattened or with their dimensions preserved?







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b) animation-state

d) all of the mentioned

35. Which of the following property specifies whether an element is an accelerator indicator or not?

a) animation

c) scan

b) **accelerator**

d) none of the mentioned

36. Which of the following property specifies the direction in which a marquee should move?

a) marquee

c) marquee-time

b) **marquee-direction**

d) none of the mentioned