1. A pseudo-class is a CSS property which is used to define a special state of an element.

Whereas, a pseudo-element is a property which is used to style specified parts of an element.

1. Types of pseudo-elements:

* ::first-line
* ::first-letter
* ::before
* ::after

1. The before pseudo-element is used to insert some content before an element and after pseudo-element is used to insert some content after an element.
2. The opacity property is used to specify the opacity/transparency of an element.
3. JavaScript is one of the **most important language in** all web development. It is used to program the behavior of web page.
4. We can add comment in JS in two ways:

* Single line comment: Single line comments start with //
* Multi-line comment: Multi-line comments start with /\* and end with \*/.

1. We can crate JS variables by creating it and then we can assign the value to it.

Example:

var place;

place=”India”;

1. Hoisting in JavaScript is used to move all variable and function declarations to the top of the current scope.
2. DATATYPES in JS:

**Primitive datatype:**

* String
* Number
* Boolean
* Undefined

**Complex datatype:**

* Function
* Object

1. Isfinite check where the value id a finite number(means it should not be infinite number) whereas the isinteger checks where the value is an integer.
2. Number datatype in JS is used to store numbers. It can store any number value, decimal or non decimal.
3. String: A string in JS is zero or more characters written inside quotes.

Examples: var name=”suraj kumar shaw”

1. lastIndexof and indexof difference:

The **indexOf()** method returns the index of (the position of) the **first** occurrence of a specified text in a string. Whereasthe **lastIndexOf()** method returns the index of the **last** occurrence of a specified text in a string.

1. **Replace and Search:** The **search()** method searches a string for a specified value and returns the position of the match. Whereas the **replace()** method replaces a specified value with another value in a string.
2. **Difference between slice, substr and substring:** All the 3 commands are used to extracts a part of a string and returns the extracted part in a new string.The only difference between them is slice can accept negative values, whereas substing cannot accept negative values. And in substr second parameter specifies the **length** of the extracted part whereas in slice and substring it specifies the position.
3. The == operator is used to check whether the given value is equal to the assigned value of the variable whereas === check if the given value and the type of value is equal to the assigned value and type of the variable. It is useful whenever we have to compare a given variable value to a desired value of the same variable.
4. **What will be output for this and why?**
5. ‘A’==’a’

**Ans:** Error as we have not defined

1. ‘1’===1

**Ans:** Error

1. false==true;

**Ans:** false

1. 0==false

**Ans:** true

1. 0===false

Ans: false

1. null==undefined

**Ans:** true

1. null===undefined

**Ans:** false

1. 5==’five’

**Ans:** false

1. 'This is test'=='this is test'

**Ans:** false

1. typeOf null

**Ans:** object

1. **What should be naming convention for variables ?**

**Ans:**

* It should not use any of the JavaScript reserved keywords as a variable name.
* It should not start with a numeral. Must begin with a letter or an underscore character.
* Variables in JS are case-sensitive.

1. **Give answer for below:**

* typeof {name:'John', age:34} ?

**Ans:** object

* typeof  [1,2,3,4,5] ?

**Ans:** error

* typeof 5 ?

**Ans:** error

* typeof ‘x’ ?

**Ans:** string

* typeof false ?

**Ans:** boolean

1. **How to invoke function?**

**Ans:** The () operator is used to invoke function in JS.

1. **What is return in function ?**

**Ans:** return is used to stop function’s execution and return the result of the function.

1. **What is anonymous function, benefits of using anonymous functions?**

Ans: **anonymous function** are function without a name.

Benefit of using it that we do not need to call the function every time we use it we can declare it at any time whenever we need it.

23) What is javascript scope. Give examples for local and global storage.

**Ans:** In JS scope is used to determine the accessibility of variables, when and where it can be used.

**24)what will be output for below code, give reason for answer:**

1. console.log(a);

**Ans:** Error as we have not defined ‘a’.

1. a= 10;console.log(a)

**Ans:** 10

1. var a= 10

function sum(){

 console.log(a);

 var a;

}

**Ans:** undefined as we have defined the var a after console.log(a)

  4. var b= 10;

      function getUserDetails(){  
          console.log(a)

        var a=10  
        }

getUserDetails()

**Ans:** undefined as we have defined the var a after console.log(a)

5.  var a= 10;

      function getUserDetails(){  
            var a=10

          console.log(a);

         a=5  
        };  
  console.log(a);

getUserDetails()

**Ans:** 10 and 10

6.  b= 10  
 function getUserDetails(){

Return 0

var a= 10;

console.log(a)

}

getUserDetails()

**Ans:** It will show error as we have declared the Return statement before declaring the variable in function as soon as the return statement is executed the function call will exit.

7. var a=50;

  function getUserDetails(){  
     console.log(a)  
   }

**Ans:** undefined as we have not defined a within the function.