

## Answer for Exam

### Part 1. Multiple Choose.

50 % mark

1. JavaScript is an \_\_\_\_\_ language?

- A. Object-Oriented
- B. Object-Based
- C. Procedural
- D. None of the above

Answer: A

**Explanation:** JavaScript is an Object-Oriented Language. JavaScript is a very good language to write object oriented web apps. It can support OOP because supports inheritance through prototyping also properties and methods. You can have polymorphism, encapsulation and many sub-classing paradigms.

2. How do we write a comment in JavaScript?

- A. /\* \*/
- B. //
- C. #
- D. \$ \$

Answer: B

**Explanation:** Single line comments start with //.Any text between // and the end of the line will be ignored by JavaScript (will not be executed).

3. Which of the following keywords is used to define a variable in Javascript?

- A. var
- B. let
- C. Both A and B
- D. None of the above

Answer: C

**Explanation:** Both var and let keywords are used to define a variable in Javascript.

4. How can a datatype be declared to be a constant type?

- A. const
- B. var
- C. let
- D. constant

Answer: A

**Explanation:** Variables can be declared as **constants** by using the “**const**” keyword before the datatype of the variable.

5. When the switch statement matches the expression with the given labels, how is the comparison done?

- A. Both the datatype and the result of the expression are compared.
- B. Only the datatype of the expression is compared.
- C. Only the value of the expression is compared.
- D. None of the above.

Answer: A

**Explanation:** Switch performs an ‘===’ based comparison, both the value of the expression and its datatype is compared.

6.What will be the output of the following JavaScript code snippet?

```
var txt1 = "Sanfoundry_";  
  
var txt2 = "Javascriptmcq";  
  
console.log( txt1 + txt2);
```

- A. error
- B. Sanfoundry\_Javascriptmcq
- C. undefined
- D. SanfoundryJavascriptmcq

Answer: B

**Explanation:** Explanation: The + operator in JavaScript acts as a concatenation operator when used with string. The new string does not have any space between the two added strings.

7. Arrays in JavaScript are defined by which of the following statements?

- A. It is an ordered list of values
- B. It is an ordered list of objects
- C. It is an ordered list of string
- D. It is an ordered list of functions

Answer: A

**Explanation:** An array in JavaScript is an ordered list of **values**, each value is referred to as an element, and it is identified by an index. An array can include values of many sorts and the length of an array dynamically sized.

8. What will be the output of the following JavaScript code?

**function compare()**

{

**a =2;**

**b ="2";**

**if(a==b)**

**return true;**

**else**

**return false;**

}

**console.log(compare())**

- A. false
- B. true
- C. compilation error
- D. runtime error

Answer: B

**Explanation:** The == convert different type of operands to the same type before making the comparison.

9. What will be the output of the following JavaScript code snippet?

```
function equalto()
{
    num=10;
    if(num==="10")
        return true;
    else
        return false;
}
```

- A. false
- B. true
- C. compilation error
- D. runtime error

Answer: B

**Explanation:** A === operator is only true if the operands are of the same type and the contents match.

10. What will be the output of the following JavaScript program?

```
function sanfoundry(javascript)
{
    return (javascript ? 'yes':'no');
}

ans=true;

console.log(sanfoundry(ans));
```

- A. Compilation error
- B. Runtime error
- C. Yes
- D. No

Answer: C

**Explanation:** In javascript, “?” is called the ternary operator which is used for choosing one choice from the given two choices. It is used instead of if else statement and makes the code **shorter**.

11. What will be the output of the following JavaScript code?

```
function range(javascript)
{
    a=5;

    for(let i=0;i<javascript;i++)
    {
        console.log(a);
    }
}

range(3);
```

- a) 2
- b) 5
- c) 555
- d) error

Answer: C

**Explanation:** for loop first initializes the variable and later on checks for the condition expression and after that execute the line of statements. The value of iterator i increase until it reaches the value of length.

12. What will be the output of the following JavaScript code?

```
var quiz=[1,2,3];

var js=[6,7,8];

var result=quiz.concat(js);

console.log(result)
```

- A. 1, 2, 3, 6, 7, 8
- B. 123

- C. 1, 2, 3
- D. Error

Answer: A

**Explanation:** **Concat** is a predefined function in the array library in Javascript. The concat function is used to combine the value of two arrays.

13. In JavaScript, what is a block of statement?

- A. Conditional block
- B. block that combines a number of statements into a single compound statement
- C. both conditional block and a single statement
- D. block that contains a single statement

Answer: D

**Explanation:** A block statement groups zero or more statements. In languages other than JavaScript, it is known as a compound statement. A statement block is a block that combines more than one statements into a single compound statement for ease.

14. The "function" and " var" are known as:

- A. Keywords
- B. Data types
- C. Declaration statements
- D. Prototypes

Answer: A

**Explanation:** The var and function are declaration statements—they declare or define variables and functions. These statements define identifiers (variable and function names) that can be used elsewhere in your program and assign values to those identifiers.

15. In the following given syntax of the switch statement, the Expression is compared with the labels using which one of the following operators?

switch(expression)

```
{  
    statements  
}
```

- A. ===
- B. equals
- C. ==
- D. equals

Answer: A

**Explanation:** strict comparison (e.g., ===) is only true if the operands are of the same type and the contents match.

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

```
var grade='C';

var result;

switch(grade)
{
    case'A':
        result="10";
        break;
    case'B':
        result="9";
        break;
    case'C':
        result="8";
        break;
    default:
        result="0";
}

console.log(result);
```

- A. 10

- B. 9
- C. 8
- D. 0

Answer: C

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

Answer: B

**Explanation:** A local variable takes precedence over a global variable with the same name.

18. Choose the correct snippet from the following to check if the variable "a" is not equal the "NULL":

- A. if(a!==null)
- B. if (a!)
- C. if(a!null)
- D. if(a!=null)

Answer: A and D

19. See the given code of JavaScript and choose the correct output from the following:

```
var string1 = "40";
```

```
varvalueinit=50;
```

```
console.log( string1 +intvalue);
```

- A. 4090
- B. 90



C. 4050

D. Exception

**Answer: C**

**Explanation:** In JavaScript, the alert method does the typecasting and converts the value of the variable "valueinit" to a string after that it concatenates both of the strings and displayed them on the screen. So, here the correct output would be 4050.

20. Which one of the following is an ternary operator:

A. ? :

B. :

C. -

D. +

**Answer: A**

**Explanation:** A ternary operator is the one that takes 3 operands. Fr eg the ? : operator. Let us look at an example. `x>y ? print ("x is greater") : print ("y is greater");`

21. Which one of the following is known as the Equality operator, which is used to check whether the two values are equal or not:

A. =

B. ===

C. ==

D. &&

**Answer: C**

**Explanation:** The equality operator (==) is used to compare two values or expressions. It is used to compare numbers, strings, Boolean values, variables, objects, arrays, or functions. The result is TRUE if the expressions are equal and FALSE otherwise.

22. 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

**Answer: D**

**Explanation:** In a for loop, the initialization, the test, and the update are the three crucial manipulations of a loop variable.

23. A set of unordered properties that, has a name and value is called\_\_\_\_\_

A. String

B. Array

C. Serialized Object

D. Object

**Answer: D**

**Explanation:** An object is an unordered collection of properties, each of which has a name and a value.

24. A collection of elements which may either in order or not, is called \_\_\_\_.

A. String

B. Array

C. Serialized Object

D. Object

**Answer: B**

**Explanation:** An array is a collection of different elements that are of the same data-type or not. It can place elements in ascending order, in descending. order or random order. We can interpret it as a container that contains data items of the same data-type.

25. Which one of the following options is the correct output for the given code of JavaScript?

```
var values=["Three","two","one"];
```

```
varans=values.shift();
```

```
console.log(varans);
```

- A. One
- B. two
- C. three
- D. error

**Answer: C**

**Explanation:** The "shift()" method used in the given code is one of the predefined method in JavaScript. This method is used to remove the data elements from the beginning and return it along with the new length of array. We can say that the "shift()" method works like the "pop" method except it removes the data element from the starting of array unlike the "pop" which removes from the end of the array.

**Part 2. Give short answer for the following questions.**

**20 % mark**

1. What are JavaScript Data Types?

**Answer:**

The Primitive Data types

- 1. String
- 2. Number
- 3. Bigint
- 4. Boolean
- 5. Undefined
- 6. Null

The Object Datatype

The object data type can contain:

- 1. An object
- 2. An array

2. What are global variables? How are these variable declared?

**Answer:**

Global variables are those variables which are declared outside of all the functions or block and can be accessed globally in a program. It can be accessed by any function

present in the program.

3. What is 'this' keyword in JavaScript?

**Answer:**

“**This**” keyword refers to an object that is executing the current piece of code. It references the object that is executing the current function. If the function being referenced is a [regular function](#), “this” references the global object. If the function that is being referenced is a method in an [object](#), “this” references the object itself.

4. Difference between “==” and “===”?

**Answer:**

The main difference between the two is == check for same values and '===' also checks for the datatype to be same as well. === is a strict comparison operator.

5. Does JavaScript support automatic type conversion show in example?

**Answer:**

Does JavaScript support automatic type conversion? Yes.

Example var x=10

```
x="name"
```

```
x=true
```

**Part 3. write the JavaScript code for the following questions.**

**30 % mark**

1. write the different of var, let, const

**Answer:**

```
//-----let -----
```

**1. Not Redeclare**

```
let y; // decl
```

```
y=10; //assign
```

```
// let y=20; // error
```

```
var x;
```

```
var x;
```

## 2. Block scope, we can't access out side of the block

```
{  
  
  let t =10;  
  
  console.log(t)  
  
  const r = 20;  
  
  var w=30;  
  
}  
  
// console.log(t)   error  
  
// ----- const -----//
```

### 1. // Not Redeclare

```
const c = 10;  
  
// const c = 23   // error
```

### 2. // Not Reassign

```
c=20;    // TypeError: Assignment to constant variable.  
  
console.log(c)
```

## 3. // Block scope, we can't access out side of the block

```
{  
  
  const d= 10;  
  
}  
  
console.log(d)  //t is not defined
```

2. write all the looping syntax in JavaScript?

**Answer:**

### // 1. For Loop

```
for (let i = 1; i < 5; i++)  
  
{
```

```
console.log(i);  
}
```

## // 2. while loop

```
let count1 = 1;  
while (count1 < 10)  
{  
  console.log(count1);  
  count1 +=2;  
}
```

## // 3. do...while loop

```
let count = 0;  
do {  
  console.log(count);  
  count++;  
} while (count < 5)
```

3. write all function syntax in JavaScript?

### Answer:

#### 1. Normal Function

```
function normalFunction()  
{  
  console.log('normal function')  
}
```

#### 2. Anonymous Functions

```
let anomolsFuncton = function ()
```

```
{  
  console.log('Anonymous Functions')  
}
```

### 3. JavaScript Immediately Invoked Function

```
( function ()  
  
{  
  console.log("imedtily calling")  
}) ();
```

### 4. Arrow Function

```
let arrowFunction = () =>  
  
{  
  console.log ("Arrow Function")  
}
```

4. Create Array with initial value?

**Answer:**

#### // 1. Array crating by using litral way

```
let arrayName = ['element1', 'element2', 'element3']; //with inital value
```

```
let emptyArray1 = []; // array with empty element
```

#### // 2. Crating array with Array ()

```
let emptyArray = new Array(3); // creates an array with initial size 3
```

```
let numArray = new Array(1, 2, 3); // create an array with three numbers 1,2 3
```

5. Create Object with initial value?

**Answer:**

#### // 1. Using an Object Literal

```
var objectName = {
```

```
key1:'value1',  
key2:'value2',  
key3:'value3',  
key4:'value4',  
key5:'value5',  
}
```

```
var objectName = {}  
  
objectName.key1 = 'value1';  
objectName.key2 = 'value2';  
objectName.key3 = 'value3';  
objectName.key4 = 'value4';  
objectName.key5 = 'value5';
```

## // 2. Using the JavaScript Keyword new Object()

```
var Student = new Object();  
  
Student.first_name = "John";  
Student.last_name = "kal";  
  
Student.age = 50;  
  
Student.isActive = true;
```