**Java Script (Descriptive)**

1. **Write some features of JavaScript.**

The features of JavaScript:

1. JavaScript prototype-based object-oriented scripting language.
2. It is a high-level interpreter’s language.
3. JavaScript is dynamic, weakly typed and has first-class functions.
4. JavaScript is primarily used in the form of client-side.
5. **“JavaScript is called interpreted language”- why?**JavaScript read, error checking, translates and execute by an interpreters line by line. So it’s called interpreted language.
6. **Why JavaScript is called weakly type language?**JavaScript variable doesn’t require any declaration for its data type. Weakly typed programming language allows a value of one type to be treated as another, for example treating a string as a number and it is not necessary to declare the variable type when the variable name is declared. So it is a weekly typed language.
7. **What do you understand by Undefined and null values?  
   An undefined** value is return when we attempt to use a variable that has not been defined or one that is declared but that we forgot to provide with a value.  
   Var nada;  
    document. write(nada);  
    **Null** is also one kind of value. It is not zero, not blank or not undefined.  
   Var noVal=null;   
   document. write (noVal);
8. **What are primitive data types?**

The data types which contain only one component are called primitive data. Boolean values, number, strings, and null and undefined values all constitute primitive data types.

1. **What is variable?**

Variables are used to hold values or expressions. We can compare variables with containers on a container ship. We can put all different types of contents, move them to another port, empty them, and replace the container with new content. Example:   
(a) x=5;  
 Or (b) expression z=x+y;

1. **What are global and local variables?**

**Local variable:** These variables only exist inside the specific function that creates them. They are unknown to other functions and to the main program.

**Global variable:** A global variable has global scope which means it is defined everywhere in your javascript code. They do not need recreated if the function is recalled.  
Example-   
var a=5;  
function test()  
 {var b=”abc”; var c=a+b;}  
Here “a” is global variable and “b”, ”c” are local variable.

1. **What is an array?**

An array is a special variable, which can hold more than one value at a time. An array can hold your variable values under single name. Location of an array starts from ‘0’. In Java script arrays are treated as objects.  
Example- var myArray=new Array();  
var myArray=new Array(“value 1”, “value 2” );

1. **Which are called LIFO based and FIFO based method?**

**L.I.F.O** (Last in first out) based method- pop, push  
**F.I.F.O** (First in first out) based method-shift, unshift  
In a pop() operation, pop removes the last element of an array and returns it. Shift is similar to pop method but its work on the first value.   
In push operation, push adds a value to the end of the array and leaves it there. Unshift is similar to push method but its work on the first value.

1. **What are the two purposes of plus operator?**

The plus sign (+) is used both for adding numbers and concatenating string. String concatenation refers to binding one or more string into a single. It evaluate left to right.

For example-  
Concatenation:  
Var a = “New”; Var b = “Riders”; Var gap =” “; Var display = “a+gap+b”; document.write(display);  
Output = New Riders.

Calculation: var a = 10; var b = 20; document.write(a+b);  
Output = 30.

1. **What is the use of typeof operator?**

The typeof operator is unary, returning one of the following values-

1) Number, 2) String, 3) Boolean, 4) object, 5) Function, 6) Undefine

7) Null.   
To use the operator (typeof) a space and the operand, or place the operand in parentheses after the type of operator.

1. **Which operator can be used as an alternative of conditional statement?**

Java script provides switch and case statements as an alternative of conditional statement.  
Switch (expression){  
case 1: statement 1 executes; break;  
case 2: statement 2 executes; break;  
Default: default statement execute }  
document.W

rite(expression);

1. **What are the three basic structure of JavaScript?**

Three basic structure of java Script are:  
a) Sequence - placed in sequence order.   
b) Branches – execute alternative condition.  
c) Loops –it repeat a statement.

1. **What are the three categories of operators?**

Operator can be placed into three categories:  
 a) Binary – it has two operands. x+y, a/b

b) Unary - it has one operands. +=, \*=, ++  
c) ternary - it has three operands. (condition?statement true: statement false)

1. **Which loop checks the condition at the end of the statement?**

Do while loop check the condition at the end of the statement. In Do while loop, first execute the statement and then checked the condition.  
function do ()  
{Statement counters increment/ decrement}   
while (termination condition)

1. **What are the three parts of for loop?**

For loop is a fixed loop as it continues from a fixed value and ended after reaching a fixed value.

(a) Initial value (b) Condition (c) Increment/ decrement   
For (start value; termination; increment/ decrement)  
{Statement}

1. **Where return statement is used?**

When we create a function in JavaScript we need to remember to provide a return statement in the script, if we plan to use the function as data in another expression. We use it in the   
(1) End of the function (2) End of the statement   
**Function** returnMessege ()  
{Statement}

1. **What the benefit of using with statement.**

With statement is used when numerous function of an object is used. Using with () statement it is possible to **reduce prototype object references and makes the code more readable.**with (object references)  
{Statement}

1. **How can you fire a function?**

We can fire a function with event handlers. There are three main event categories. We can call a function in a JavaScript.

* Keyboard and mouse events
* Load events
* Form related events

1. **What are the three main event categories?**

Three main event categories are…

* Keyboard and Mouse events
* Load events
* Form-related events

1. **How function constructor and function literals are declared?**

**The function () constructor** looks like the new object or array constructor. It has this general format-   
 var variableName = newFunction (“exp1”,”exp2”,”return exp3”);

**The function () literals** look more like function statements  
var variableName = function (arg1,arg2){return exp1};

Using this function as literal data provides a lot more flexibility in our scripts.

1. **Show the hierarchy of HTML form.**

The hierarchy of HTML form is given bellow:

window.document.formname.elementname.value or

window.document.forms[0].elements[0].value

1. **What do you understand by prototype concept in JavaScript?**

In javaScript first we create an object and then associate its properties. That means the prototype concept is closely related with the concept of class, which treats an object as a member of the class. It also treats the named object with all of the properties that all members of the class have.

1. **Why object-oriented programming is essential in JavaScript?**

Object oriented programming means a set of property and behaviors. So we can use property and behavior easily by OPP. It’s easy to maintain and it is much shareable. We can also reuse it.

1. **What is Document Object Model (DOM)?**

The document object model is an **application programming interface** (API) for valid HTML documents. It defines the logical **structure of documents** and the way a document is **accessed and manipulated**.

1. **What is the benefit of preloading image?**
2. Preloading or placing images in the browsers cache is simple.
3. Can place the preload object in an HTML-defined image slot.
4. Can replace it with the cached image.
5. There is no limit to the number of images that you can cache.
6. Can include the height and width.
7. **What are the functions of open and close method?**

**The open ()** method has access to most parameters, including height, location, member, resizable, scrollbars, status, toolbars and width.  
Function getWin()  
{  
Open(“sampWin.html”,”sampWin1”,”toolbar=no, width=200, height=150 ”)  
}  
**The close()** method is always self-referent with a page not part of a frameset.  
Function shutI()  
{Close();}

1. **What are the events in HTML and JavaScript?**
2. Mouse Events – onMouseOver, onMouseOut, onClick, onMouseUp.
3. Key Events – onKeyDown, onKeyUp, onKeyPress.
4. Form Events – onBlur, onChange, onFocus, onReset, onSubmit.
5. Window/Page/Image Events – onAbort, onError, onLoad, onResize.
6. **What are the three cross-browser methods of history object?** 1. Back()
7. Forward()
8. Go(n)
9. **What are the two methods of location objects?**(a) Reload () – acts just like the reload button.

(b) Replace () – it sends the page identified in the URL.

1. **What do you mean by history object? Write down its method?**

The history object is a property of the window object and is accessed through the **window.history** property. It has a cross browser property **length** and three methods.

**Methods are: (a)** Back () **(b)** Forward () **(c)** Go (n)

1. **What is difference between substring () and charAt ()?**

**Substrings (begin, end):** The substring () method extracts the characters from a string, between two specified indices, and returns the new sub string. Enters the beginning and ending numeric positions of a part of the string object.

**CharAt (n):** The charAt () method returns the character at the specified index in a string. The index of the first character is 0, and the index of the last character in a string called "txt", is txt.**length-1.**

1. **What do you mean by ‘with’ statement?**

With statement is used when numerous function of an object is used. Using with () statement it is possible to reduce prototype object references and makes the code more readable.  
with(object references)  
{Statement}

1. **What do you mean by event and event handler?**

**Event:** An event is some notable action to which a script can respond and it makes things happen and give the HTML website live.

**Event Handler:** Event Handler is the interactive trigger in HTML and JavaScript whether the script launches a function means event. Such as  
onLoad, onMouseClick, onMouseOver, onUnLoad etc.

1. **What do you mean by ceil () and floor ()?**

**Math.Ceil:** The Math.Ceil () function round numbers to the next highest integer in JavaScript language.

**Math.Floor:** The Math.Floor () function round numbers to the last/down lowest integer in JavaScript language.

1. **What is difference between setInterval () and settimeout ()?**

**SetInterval:** The SetInterval () method in JavaScript repeats a script action every many milliseconds, initiating the script after the specified number of millisecond.

**SetTimeout:** The SetTimeout () method in JavaScript is a simple function used to call some function after a specified amount of time.