

Assignment 02

Part A (Multiple Choice Questions)

Ques A1 (b) `src`

Ques A2 (d) `pop()`

Ques A3 (a) locally scoped and aren't accessible outside the function ~~or implicitly~~

Ques A4 (d) Document Object Model

Ques A5 (a) `document.getElementById`

Ques A6 (b) `<?php`

Ques A7 (c) `echo()`

Ques A8 (a) Cookies and Session

Ques A9 (c) AngularJS

Ques A10 (c) Virtual DOM

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Part B (Multiple Choice Descriptive Questions)

Ques B1 (a) embedding javascript in HTML

inline : inside the `<script>` tag within the XHTML document.

```
<script> // JS code
```

external : The js file is stored separately and linked to XHTML document.

```
<script src="script.js"></script>
```

(b) Screen output and Keyboard input in Javascript

→ for console output :

```
console.log("Hello World"); // console output
```

→ for output over document :

```
document.write("Hello World");
```

→ alert

```
alert("Hello World");
```

→ prompt for user input

```
let userInput = prompt("Enter something");
```

(c) Sorting arrays in Javascript

→ let arr = [3, 1, 4, 15, 9, 2, 6, 5];

```
arr.sort((a,b) => a-b); // ascending order
```

```
arr.sort((a,b) => b-a); // descending order
```

Ques B2

(a) String methods

var str = "Hello World";
 str.length → length of string
 str.toUpperCase() → converts string to uppercase
 str.toLowerCase() → converts string to lowercase
 str.charAt(7); → character at index 7
 str.indexOf("world"); → index of substring/character

(b)

arr1 = ['apple', 'banana']

arr2 = ['orange', 'grape']

console.log(arr1.join('-')) // apple-banana

arr1.slice(1, 2) // banana

arr1.concat(arr2) // [apple, banana, orange, grape]

arr1.reverse() // [banana, apple]

(c)

function isPrime(num) {

 if (num <= 1) return false;

 for (var i = 2; i <= Math.sqrt(num); i++) {

 if (num % i == 0) return false

}

 return true

}

Ques B3

for (let i = 0; i < 5; i++) {
 console.log(i);
 }

let i = 0
 while (i < 5) {
 console.log(
 i
);
 i += 1

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

(a) Loops in JS

const text = "Hello World"

const pattern = /Hello/
pattern.test(text); // true

(c) function validateEnrollmentNumber()

const eno = document.getElementById('eno').value;

const pattern = /^[PV-N][0-9]{7}\b/;

const validat

```

if (pattern.test(emr)) {
    alert("Enrollment No is valid")
}
else {
    alert("Enrollment No is invalid")
}

```

<script type="text/javascript">
 src = "validation.js" </script>

 <input type="text" id="enrollment" id="emr" onblur="validateEnrollmentNumber()"/>

Ques 84 (a) DOM (Document Object Model)

The DOM is a programming interface for web documents. It represents the document as a tree structure where each node corresponds to an element or an attribute. The root of the tree is the document itself.

(b) Accessing Elements in JS

elements can either be accessed using their id or their classname.

document.getElementById("id"); // by id

document.getElementsByClassName("class"); // by classname

(c) An event is an action or occurrence like keypress or mouse click often recognized by the system. Event Handler is a function or a piece of code that is executed in response to a particular event.

```

Button  

<button id="myButton" onclick="func()">  

    Button </button>  

function func() {  

    alert ("Button is clicked!")
}

```

Textboxes

<input type="text" id="tb" oninput="func()">

function func() {
 console.log(
 document.getElementById("tb").value
)
}

Ques 85 (a) PHP String Methods

strlen() → returns length of a string

stroupper() → converts a string to uppercase

strtolower() → converts a string to lowercase

substr(\$str, 0, 5) → returns a substring

strpos (\$str, substr) → returns the position of first occurrence of a substring.

(a) arrays in php

<?php

```
// creating an indexed array  
$colors = array("red", "green", "blue");  
  
array_push($colors, "yellow"); // push one or more elements at  
// the end of array  
  
$c = array_pop($colors); // pop last element of the array  
  
count($colors); // returns number of elements in the array  
  
array_reverse($colors); // reverses the order of elements  
in_array("green", $colors); // check if given element present in array  
  
array_merge($arr1, $arr2); // merges two or more arrays into  
// single array
```

?>

- (b) Arrays in PHP can be indexed or associative. Indexed arrays have numeric indices, while associative arrays have named keys.

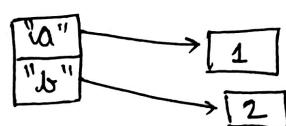
Indexed Array

```
array ("red", "green", "blue");
```

red	green	blue
0	1	2

Associative arrays

```
array ("a"=>1, "b"=>2);
```



sequential access in php

for each loop (indexed)

```
foreach ($arr as $ar) {  
    echo $ar . " ";  
}
```

for each (associative)

```
foreach ($person as $key => $value)  
{  
    echo "$key : $value";  
}
```