

## 2. Javascript

**SOP 1 :** Create a web page in HTML having a white background and two Button Objects. Write code using JavaScript such that when the mouse is placed over the first button object without clicking, the color of the background of the page should change after every \_\_\_ seconds. There should at least be 7 different and visibly distinct background colors excluding the default color. When the second button object is clicked, appropriate message should be displayed in Browsers status bar.

Create another web page using JavaScript where the background color changes automatically after every \_\_\_ seconds. This event must be triggered automatically after the page gets loaded in the browser. There should at least be 7 different and visibly distinct background colors. When the page is unloaded, the appropriate alert message should be displayed.

**SOP 2 :** Create JavaScript program for the following form validations. Make use of HTML5 properties to do the following validations :

- 1) Name, address, contact number and email are required fields of the form.
- 2) Address field should show the hint value which will disappear when field gets focus or key press event.
- 3) Telephone number should be maximum 10 digit number only.
- 4) Email field should contain valid email address, @ should appear only once and not at the beginning or at end. It must contain at least one dot(.).
- 5) Make use of pattern attribute for email to accept lowercase, uppercase alphabets, digits and specified symbols.

The image shows a web form titled "Information Form". It contains four input fields: "Your Name:-", "Address:-" (with a hint "permenant address" above it), "Contact:-", and "E-mail:-". Below these fields is a "Submit" button. The form is enclosed in a black border.

**SOP 3 :** Create event driven JavaScript program for the following. Make use of appropriate variables, JavaScript inbuilt string functions and control structures.

- To accept string from user and count number of vowels in the given string.

**SOP 4 :** Create event driven JavaScript program for the following. Make use of appropriate variables, JavaScript inbuilt string functions and control structures.

- To accept string from user and reverse the given string and check whether it is palindrome or not.

**SOP 5 :** Create event driven JavaScript program to convert temperature to and from Celsius, Fahrenheit.

Formula:  $c/5 = (f-32)/9$

[where c=Temperature in Celsius and f=Temperature in Fahrenheit.]

Output format : 40 Celsius=104 Fahrenheit

45 Fahrenheit = 7.22222222 Celsius

**SOP 6 :** Create JavaScript program which compute the average marks of students. Accept six subject marks of student from user. Calculate average marks of student which is used to determine the corresponding grades.

Range	Grade
35 to 60	F
61 to 70	D
71 to 80	C
81 to 90	B
91 to 100	A

**SOP 7 :** Write a JavaScript function to get difference between two dates in days. Create a page in HTML that contains input box to accept date from user. The input boxes should be used by users to enter their date of birth in the format dd-mm-yyyy. Do not make use of any dropdown boxes.

**Example :**

```
date_diff_indays('04/02/2019', '11/04/2019');  
date_diff_indays('01/01/2020', '31/01/2019');
```

**Output :**

66

-30

