

## **Laboratory Activity 5**

### **JavaScript Simulations**

#### **Objectives:**

At the end of this activity, the students are expected to:

1. Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's
2. Gain the creativity and imagination to build the web pages
3. Have a good understanding of Web Application Terminologies, Internet Tools other web services

#### **Simulate the following codes, and show the result:**

##### **1. Write a JavaScript program to compute the sum of an array of integers**

#### **Instruction:**

To write a program to compute the sum of an array of integers using javascript.

#### **Procedure:**

- Start the execution of the program
- Create the array with 6 elements
- Calculate the sum of array of integers using for loop
- Print the value of sum

#### **Deliverables**

- Provide your code and screenshot of your output

##### **2. Write a JavaScript program to determine whether a given year is a leap year in the Gregorian calendar**

#### **Instruction:**

To write a program to determine whether a given year is a leap year or not using JavaScript.

#### **Procedure:**

- Start the execution of the program
- Declare and define the function leapYear()
- Using the conditional constructs, check whether the given year is leap year or not.
- Show the result using 'alert' dialog box.

#### **Deliverables**

- Provide your code and screenshot of your output

- 3. Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen**

**Instruction:**

To write a javascript program for checking the given number is odd or even.

**Procedure:**

- Start the execution of the program
- Using for loop and conditional construct, check whether the given number is odd or even
- Print the output

**Deliverables**

- Provide your code and screenshot of your output

- 4. Write a JavaScript program to calculate multiplication and division of two numbers**

**Instruction:**

To write a javascript program to calculate the multiplication and division of two numbers.

**Procedure:**

- Start the execution of the program
- Declare and define two functions multiplyBy() and divideBy()
- Get the input values num1 and num2 from user using form element
- Print the output

**Deliverables**

- Provide your code and screenshot of your output

- 5. Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit**

**Instruction:**

To write a javascript program to convert temperatures to and from Celsius, Fahrenheit.

**Procedure:**

- Start the execution of the program
- Declare and define two functions FartoCen() and CentoFar()
- Get the input values Far and Cen from user using form element
- Print the output
- Stop the execution of the program

**Deliverables**

- Provide your code and screenshot of your output

## **6. Write a JavaScript function that reverses a number**

### **Instruction:**

To write a javascript program to reverse the given number.

### **Procedure:**

- Start the execution of the program.
- Declare and define the function rev\_num()
- Get the input num from the user
- Print the result

### **Deliverables**

- Provide your code and screenshot of your output

## **7. Write a JavaScript function that checks whether a passed string is palindrome or not**

### **Instruction:**

To write a javascript program to check whether a passed string is palindrome or not.

### **Procedure:**

- Start the execution of the program
- Declare and define two functions myFunction() and checkPalindrome()
- Get the input 'str' from the user
- Print the output

### **Deliverables**

- Provide your code and screenshot of your output

## **8. Write a JavaScript program to test the first character of a string is uppercase or not Aim:**

### **Instruction:**

To write a javascript program to test the first character of a string is uppercase or not.

### **Procedure:**

- Start the execution of the program
- Declare and define the function upper\_case()
- Pass the input string using the function
- Print the output

### **Deliverables**

- Provide your code and screenshot of your output

## **9. Write a JavaScript program to set the background colour of a paragraph**

### **Instruction:**

To write a javascript program to set the background colour of a paragraph text.

### **Procedure:**

- Start the execution of the program
- Declare and define the function set\_background()
- Using onclick() method, change the background of a paragraph text.

### **Deliverables**

- Provide your code and screenshot of your output

## **10. Write a JavaScript program to check the given number is mobile number or not using form**

### **Instruction:**

To write a javascript program to check whether the given number is mobile no or not.

### **Procedure:**

- Start the execution of the program
- Declare and define the function MobileNoValidation()
- Get the input mobile no from the user
- Print the output

### **Deliverables**

- Provide your code and screenshot of your output