

# School of Computing Science and Engineering

B.Tech CSE  
ETE - Jun 2023

Time : 3 Hours

Marks : 100

## Sem IV - E2UT401B - Object Oriented Java Script

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

1. Create a form for student information. Write Java Script code to find total, average, result and grade. K2 CO1 (5)
2. Justify- "JavaScript is an event-driven scripting language". K3 CO3 (5)
3. What is the use of <span> and <div>tags ? K1 CO1 (5)
4. JavaScript Program to Validate an Email Address and numeric values K1 CO2 (10)
5. Explain the need for client-side scripting? Create Object Constructor to create array of objects of employee with function update all to update all the information of an employee. K2 CO2 (10)
6. JavaScript Program to Convert the First Letter of each word in a String into UpperCase. K4 CO4 (10)
7. Write an example for JavaScript form validation. If a form field is empty, it alerts a message, and returns false, to prevent the form from being submitted. K4 CO4 (10)

**OR**

- Contract the need of Exception Handling. create a simple calculator for division that accepts user input in JavaScript and make use of exception handling. The program throws an exception with message 'Number cannot be empty'. If there is division error then it throws Division by Zero error. K4 CO4 (10)
8. What can JavaScript do in Event handling? Explain HTML 5 Standard Events. Develop a function which changes background color of page on click event of a button. K3 CO3 (15)
  9. Write JavaScript program to overload a function SumNum() such that the following function calls work perfectly:  
SumNum(1,2);  
SumNum(1,2,3);  
SumNum(...);//sum of any number of values K4 CO4 (15)

**OR**

- We have to calculate the area of a rectangle, a square and a circle. Create an abstract class 'Shape' with three abstract methods namely 'RectangleArea' taking two parameters, 'SquareArea' and 'CircleArea' taking one parameter each. The parameters of 'RectangleArea' are its length and breadth, that of 'SquareArea' is its side and that of 'CircleArea' is its radius. Now create another class 'Area' containing all the three methods 'RectangleArea', 'SquareArea' and 'CircleArea' for printing the area of rectangle, square and circle respectively. Create an object of class 'Area' and call all the three methods. K4 CO4 (15)
10. Write a program to print the roll number and average marks of 8 students in three subjects (each out of 100). The marks are entered by the user and the roll numbers are automatically assigned. Use array of Objects. K3 CO3 (15)