**Ex. No.: 2(a) Roll no:231901002**

**Date: 28.01.2025**

**Shell Script**

**Aim:**

To write a Shell script that performs basic arithmetic operations (Addition, Subtraction, Multiplication, Division, and Modulus) on two user-input numbers.



**Algorithm:**

1. Start the script.
2. Prompt the user to enter two numbers.
3. Read the input values.
4. Perform arithmetic operations: addition, subtraction, multiplication.
5. Check for division by zero:
   * If not zero, perform division and modulus.
   * If zero, display an appropriate error message.
6. Display the results.
7. End the script.



**Program: (arith.sh)**

#!/bin/bash

# Basic Calculator Script

echo "Enter two numbers:" read a

read b

add=$((a + b)) sub=$((a

- b))

mul=$((a \* b))

# Check for division/modulus by zero

CS23431-OPERATING SYSTEMS R o l l N o : 2 3 1 9 0 1 0 3 3

if [ "$b" -ne 0 ]; then div=$((a / b))

mod=$((a % b))

else div="Error: Division by zero" mod="Error: Modulus by

zero"

fi

# Display Results

echo "Addition : $add" echo "Subtraction : $sub" echo "Multiplication : $mul" echo "Division : $div" echo "Modulus : $mod"



**Sample Input and Output:** [REC@localhost ~]$ sh arith.sh Enter two numbers:

5

10

Addition 15

Subtraction : -5

Multiplication 50

Division 0 Modulus 5



**Result:**

The Shell script to perform basic arithmetic operations was successfully implemented, executed, and the output was verified.