Ex. No.: 2(a)   **Shell Script**

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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:

   o   If not zero, perform division and modulus.

   o   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
```

```
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.