

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

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### **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
```

```
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.