

**Ex. No.: 2(a) Shell Script****Date: 28.01.2025****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.