EXPT NO: 2	ARITHEMETIC OPERATOR
DATE:22.1.25	

AIM:

To perform the basic arithemetic operator in R programming.

1. Basic program:

a. Write and execute a "Hello World" program in R.

CODE:

```
print("hello world")
```

OUTPUT:

```
> print("hello world")
[1] "hello world"
```

b. Write and execute a simple program in R which includes single line comment.

CODE:

```
#addition of two numbers
 2+5
```

OUTPUT:

```
> #addition of two numbers
>
> 2+5
[1] 7
```

c. Write and execute a simple program in R which includes multi line comments.

CODE:

```
#simple mathematical calculation #assiging values to variable
a<-4
b<-7
a*b
```

OUTPUT:

```
> #simple mathematical calculation
> #assiging values to variable
> a<-4
> b<-7
> a*b
[1] 28
```

2. Variable Assignment and Printing:

a. Create a variable Age and assign your current age to it.

CODE:

```
#assiging my current age
age<-19
age
```

OUTPUT:

```
> #assiging my current age
> age<-19
> age
[1] 19
```

b. Create a variable Country and assign your country's name to it.

CODE:

```
country<-"india"
country
```

OUTPUT:

```
> country<-"india"
> country
[1] "india"
```

c. Create a variable BirthYear and calculate your birth year using the current year (e.g., 2025 - Age).

CODE:

```
2025-age
```

OUTPUT:

```
> 2025-age
[1] 2006
```

d. Print all variables (Age, Country, and BirthYear) in a single statement.

CODE:

```
age <- 19
country <- "India"
birthyear <- 2025-age
cat(age,country,birthyear)
```

OUTPUT:

```
> age <- 19
> country <- "India"
> birthyear <- 2025-age
> cat(age,country,birthyear)
19 India 2006>
```

3. Arithmetic Operators:

Write an R program to create a menu-driven calculator. Include basic operations: addition, subtraction, multiplication, and division.

CODE:

```
n <- 5
m <- 5
add <- n + m
sub <- n - m
mlt <- n * m
div <- n / m

cat("Result of addition:", add, "\n")
cat("Result of subtraction:", sub, "\n")
cat("Result of multiplication:", mlt, "\n")
cat("Result of division:", div, "\n")
```

OUTPUT:

```
> n <- 5
> m <- 5
> add <- n + m
> sub <- n - m
> mlt <- n * m
> div <- n / m
>
> cat("Result of addition:", add, "\n")
Result of addition: 10
> cat("Result of subtraction:", sub, "\n")
Result of subtraction: 0
> cat("Result of multiplication:", mlt, "\n")
Result of multiplication: 25
> cat("Result of division:", div, "\n")
Result of division: 1
```

4. Modulus Operator:

a. Assign a value to a variable called "dividend". Then, find the remainder when "dividend" is divided by 13.

CODE:

```
dividend <- 15
rem <- dividend %% 13
print("Remainder is:",rem)
```

OUTPUT:

```
> dividend <- 15
> rem <- dividend %% 13
> cat("Remainder is:", rem, "\n")
Remainder is: 2
```

b. Assign a value to a variable "check" and find whether the assigned number is divisible by 7 or not. Print the result.

CODE:

```
Num <- 38
Divisible <- (num%%7==0)
Print("divisible by 7 is:",Divisible)
```

OUTPUT:

```
> Num <- 38
> Divisible <- (Num %% 7 == 0)
> cat("Divisible by 7 is:", Divisible, "\n")
Divisible by 7 is: FALSE
```

RESULT:

Thus, the R programming is implemented and executed successfully.