### **TOKENS**

### **RESERVED KEYWORDS**

FUNCTION	WHILE	IF	TRUE	ТО	RETURN	AND	INPUT
VAR	FOR	ELIF	FALSE	END	CONTINUE	OR	INPUT_INT
		ELSE		STEP	BREAK	NOT	INPUT_FLOAT
				THEN			

## **Operators:**

- Arithmetic Operators: +, -, \*, /, ^, =, %
- Relational Operators: ,>, <, >=, <=, !=, ==
- Logical Operators: AND, OR, NOT (Reserved Keywords)

# **Special Symbols and Punctuation**

- Parentheses: (, )
- Quotation Marks for Strings: "

Comments: #

**Identifiers:** Can be any string of characters and digits  $[A-Za-z][A-Za-z0-9_]*$ 

Integer constants (INT): Numbers without decimal point.

Real constants (FLOAT): Numbers with decimal point.

String constants (STRING): Limited by " "

### **EXAMPLE PROGRAMS**

#### PROGRAMA 1. CALCULAR FACTORIAL

```
FUNCTION calcularFactorial(n)
    VAR factorial = 1;
    IF n < 0 THEN
        RETURN -1
    ELIF n == 0 THEN
         RETURN 1
    ELSE
         WHILE n > 1 THEN
              factorial = factorial * n
              n = n - 1
         END
     END
    RETURN factorial
END
PRINT("Ingresa un numero entero")
VAR n = INPUT INT()
VAR resultado = calcularFactorial(n)
IF resultado == -1 THEN
    PRINT("El Factorial no esta definido para números
negativos")
ELSE
    PRINT("El factorial es: " + resultado)
END
```

### PROGRAMA 2. SABER SI ES PRIMO

```
FUNCTION esPrimo(x)
    IF x <= 1 THEN RETURN FALSE
    VAR i = 2
    WHILE i <= x / 2 THEN
        IF x \% i == 0 THEN
           RETURN FALSE
        END
       i = i + 1
    END
    RETURN TRUE
END
PRINT("Ingresa un numero entero")
VAR n = INPUT_INT()
IF esPrimo(n) THEN
   PRINT(n + " es un numero primo")
ELSE
    PRINT(n + " NO es un numero primo")
END
```

### PROGRAMA 3. SUMA DE PARES

```
VAR suma = 0
VAR temp = 0
PRINT("Valor de n: ")
VAR n = INPUT INT()
PRINT("Valor de m: ")
VAR m = INPUT INT()
IF n > m THEN
    temp = n
    n = m
   m = temp
END
temp = n
WHILE temp <= m THEN
    IF temp % 2 == 0 THEN
         suma = suma + temp
    END
    temp = temp + 1
END
PRINT("La suma entre " + n + " y " + m + "es: " + suma)
```

## PROGRAMA 4. Celsius a Fahrenheit

```
FUNCTION convertirAFahrenheit(celsius)
    RETURN (celsius*9/5) + 32
END

PRINT("Ingrese la temperatura en grados centigrados: ")

VAR celsius = INPUT_FLOAT()

VAR fahrenheit = convertirAFahrenheit(celsius)

PRINT(celsius + " grados celsius son equivalentes a " + fahrenheit + " fahrenheit")
```