

**Q 1) Write pseudo code that performs the following: Ask a user to enter a number. If the number is between 0 and 10, write the word blue. If the number is between 10 and 20, write the word red. if the number is between 20 and 30, write the word green. If it is any other number, write that it is not a correct color option.**

Pseudo Code:

START

    DISPLAY "Enter a number: "

    INPUT number

    IF number  $\geq$  0 AND number  $\leq$  10 THEN

        DISPLAY "blue"

    ELSE IF number  $>$  10 AND number  $\leq$  20 THEN

        DISPLAY "red"

    ELSE IF number  $>$  20 AND number  $\leq$  30 THEN

        DISPLAY "green"

    ELSE

        DISPLAY "It is not a correct color option"

    ENDIF

END

**Q2) Pseudocode: Print All Multiples of 5 Between 1 and 100**

START

    LET num = 1

    WHILE num  $\leq$  100 DO

        IF num MOD 5 == 0 THEN

            DISPLAY num

        ENDIF

        LET num = num + 1

    ENDWHILE

END

**Q3) Pseudocode: Calculate Average, Minimum, and Maximum**

START

LET sum = 0

LET min = INFINITY

LET max = -INFINITY

FOR i = 1 TO 5 DO

DISPLAY "Enter number ", i, ": "

INPUT num

LET sum = sum + num

IF num < min THEN

LET min = num

ENDIF

IF num > max THEN

LET max = num

ENDIF

ENDFOR

LET average = sum / 5

DISPLAY "Average: ", average

DISPLAY "Minimum: ", min

DISPLAY "Maximum: ", max

END

**Q4) Write pseudo code and design the flowchart that reads in three numbers and writes them all in sorted descending order.**

START

DISPLAY "Enter first number: "

INPUT num1

DISPLAY "Enter second number: "

INPUT num2

DISPLAY "Enter third number: "

INPUT num3

IF num1 < num2 THEN

    SWAP num1, num2

ENDIF

IF num1 < num3 THEN

    SWAP num1, num3

ENDIF

IF num2 < num3 THEN

    SWAP num2, num3

ENDIF

DISPLAY "Numbers in descending order: ", num1, ", ", num2, ", ", num3

END

**Q5) Write pseudo code and design the flowchart that will calculate a running sum. A user will enter numbers that will be added to the sum and when a negative number is encountered, stop adding numbers and write out the final result.**

START

LET sum = 0

DISPLAY "Enter a number : "

INPUT num

WHILE num >= 0 DO

    LET sum = sum + num

DISPLAY "Enter another number : "

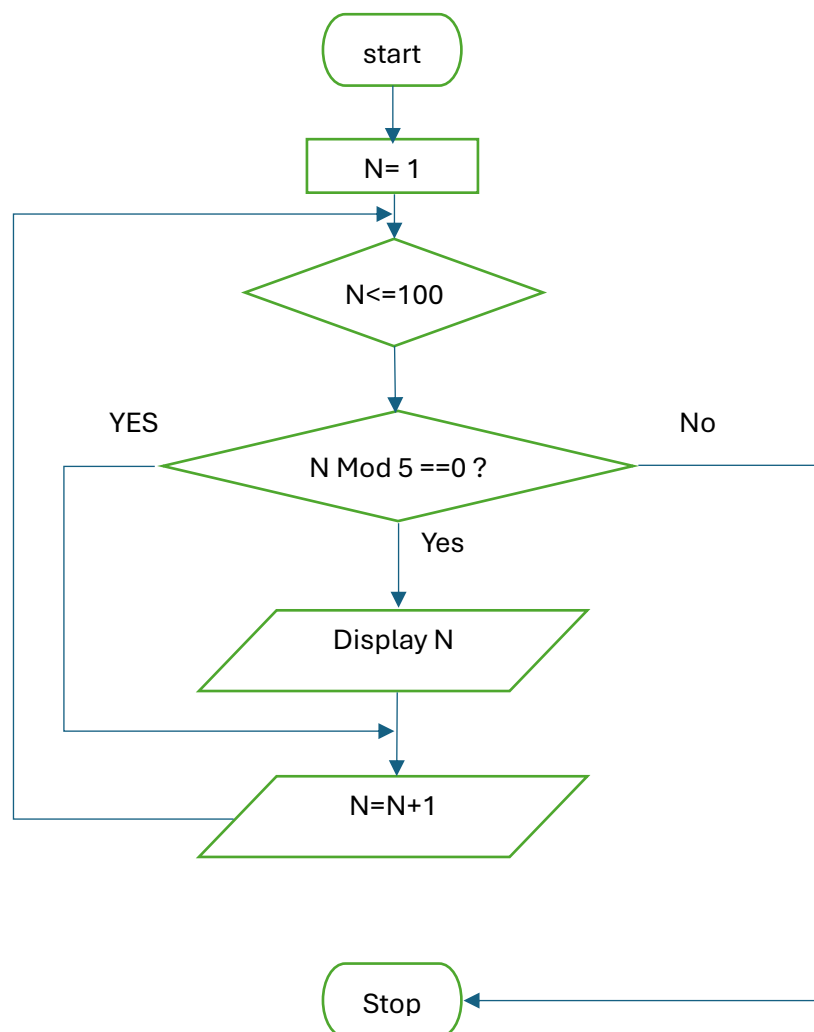
INPUT num

ENDWHILE

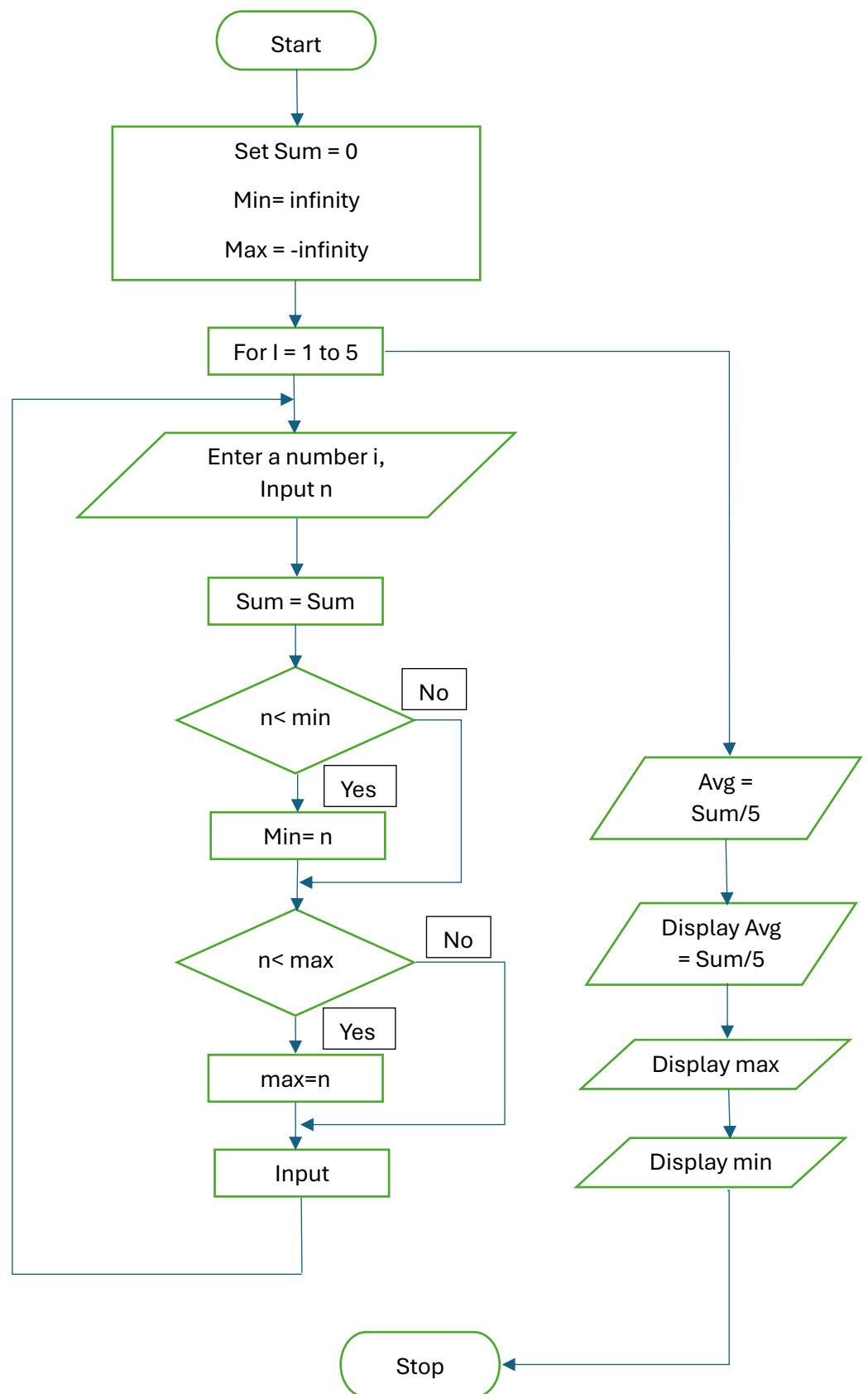
DISPLAY "Final sum: ", sum

END

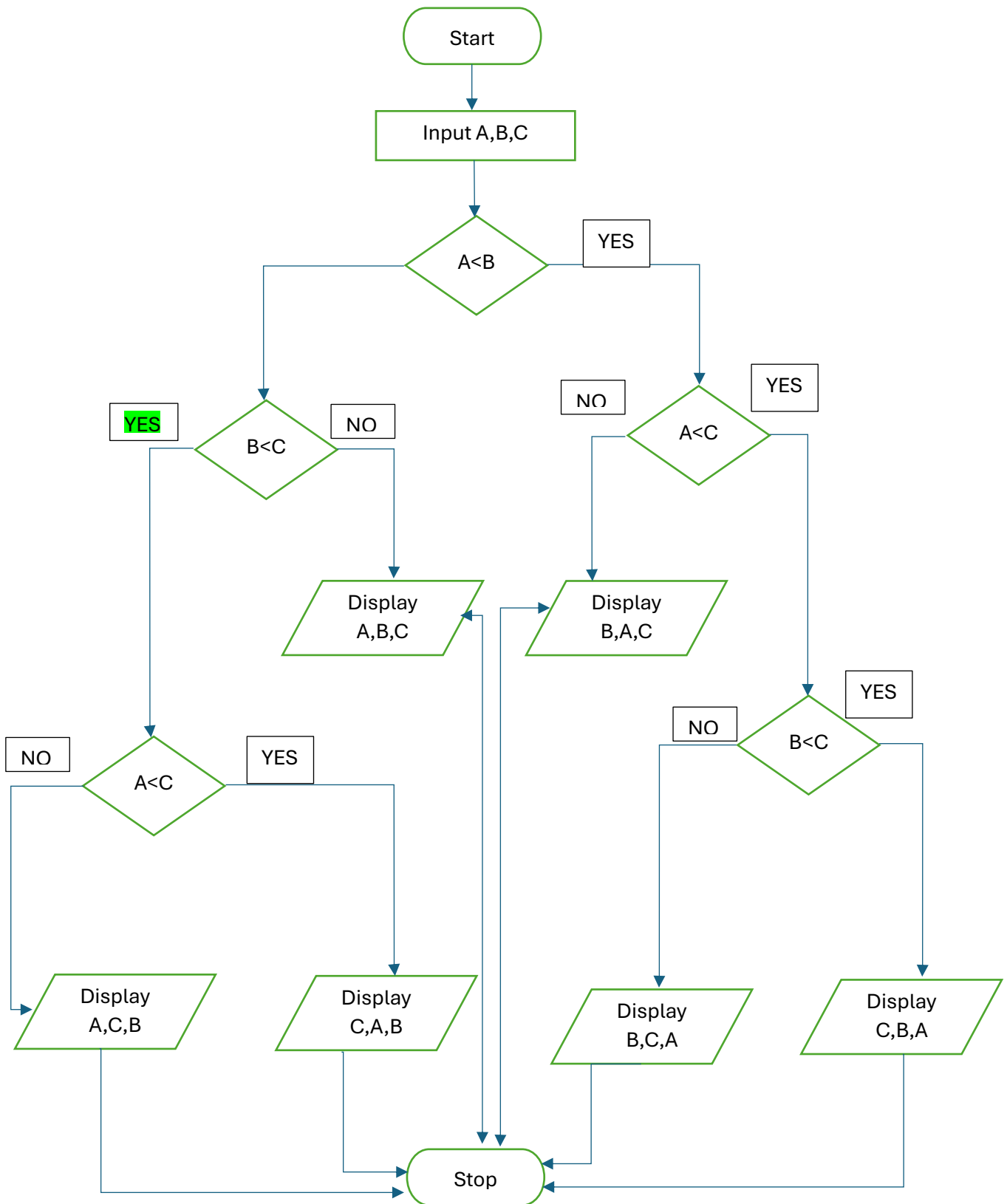
**Q2) Print All Multiples of 5 Between 1 and 100**



Q3) Calculate Average ,Maximum,Minimum



Q4) Write pseudo code and design the flowchart that reads in three numbers and writes them all in sorted descending order.



Q5) Write pseudo code and design the flowchart that reads in three numbers and writes them all in sorted descending order.

