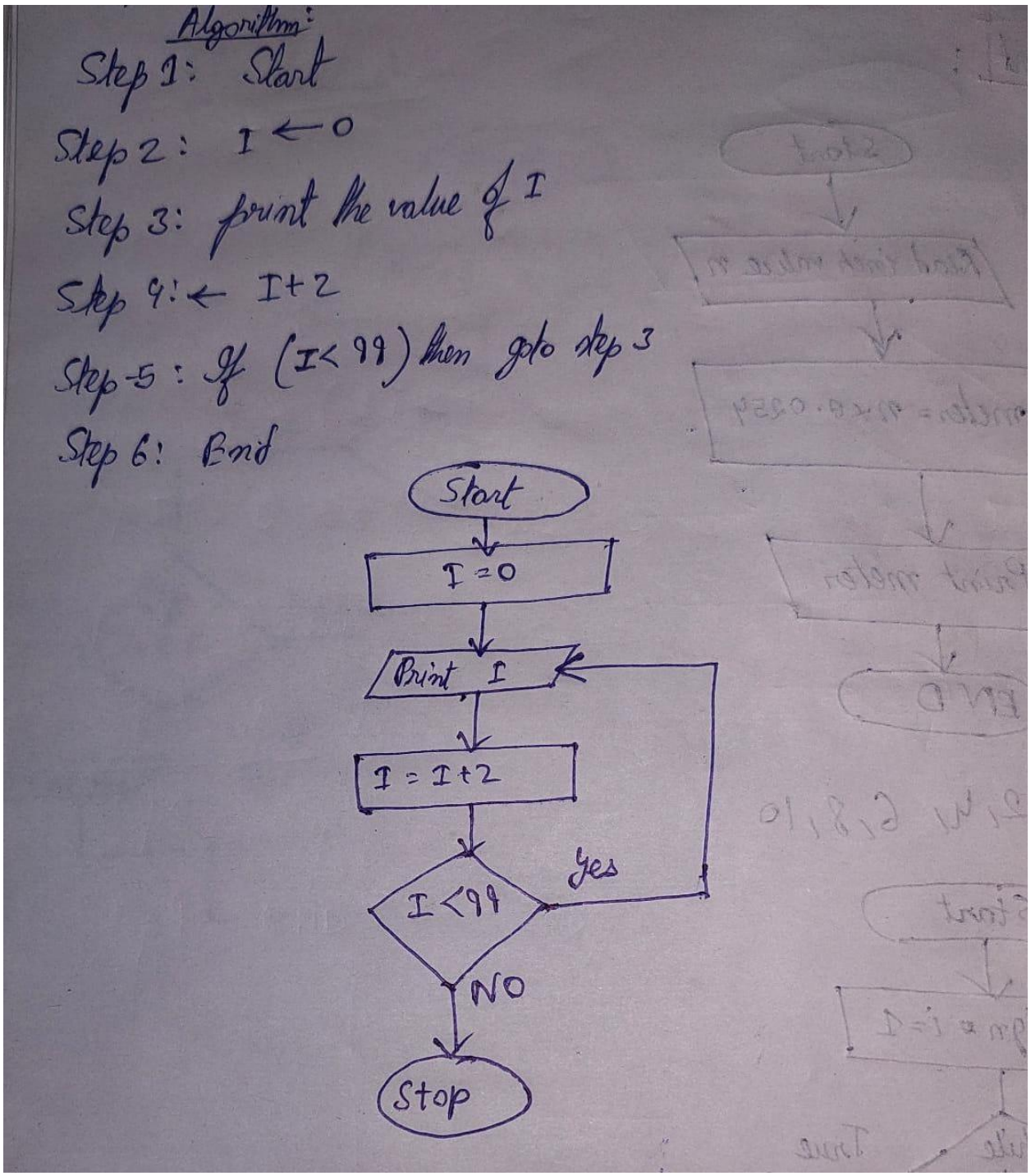
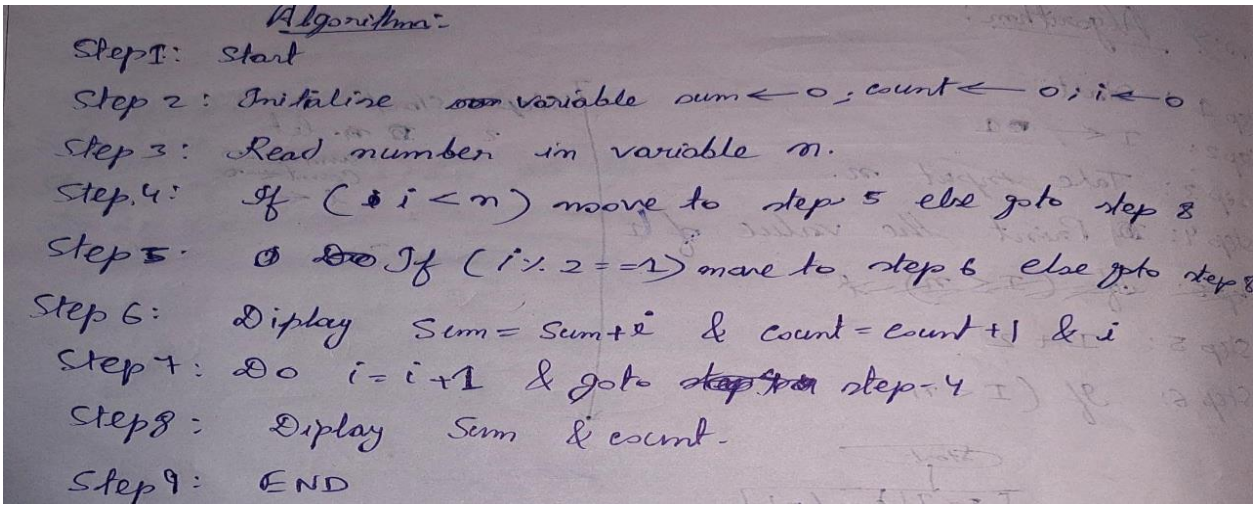
Assignment-2

1. Write the Algorithm and draw the flowcharts for the following :
a) Print even numbers between 0 and 99.



b) Print odd numbers less than a given number. It should also calculate their sum and count.



Algorithm:

Step 1: Start

Step 2: Initialise variable sum ← 0 ; count ← 0 ; i ← 0

Step 3: Read number in variable n.

Step 4: If (i < n) move to step 5 else goto step 8

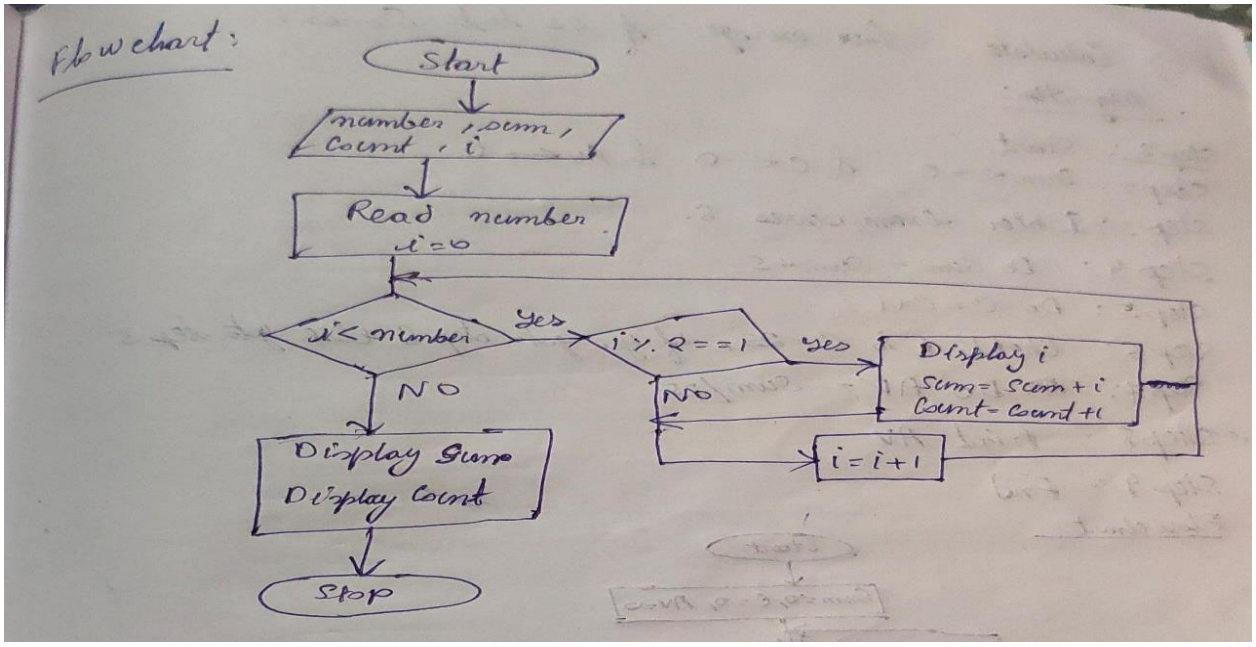
Step 5: If (i % 2 == 1) move to step 6 else goto step 7

Step 6: Display Sum = Sum + i & count = count + 1 & i

Step 7: Do i = i + 1 & goto step - 4

Step 8: Display Sum & count.

Step 9: END



c) Calculate the average of 25 test scores.

Algorithm:

Step 1: Start

Step 2: Sum ← 0 & C ← 0 & AV ← 0

Step 3: Enter exam scores S.

Step 4: Do Sum = Sum + S

Step 5: Do C = C + 1

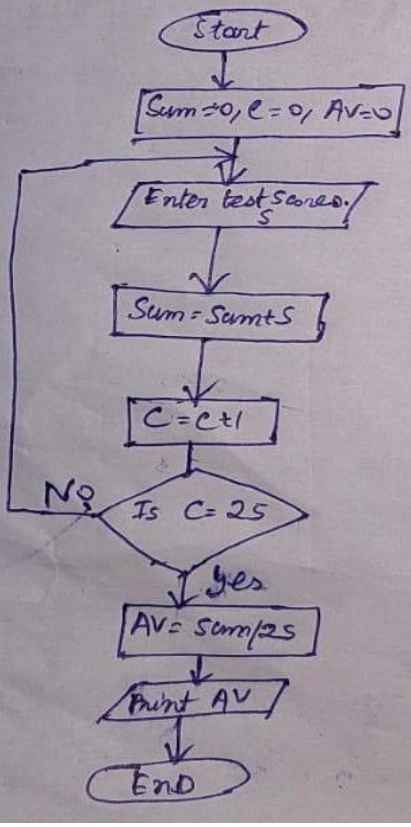
Step 6: Check is C = 25, if yes goto step 6 else goto step 3

Step 7: Do AV = Sum/25

Step 8: Print AV

Step 9: End

Flow chart



d) Print table of any number N (say 7).

Algorithm :

step1: Start

step 2: Initialise table ← 1 & c ← 1

step 3: Read number N.

step 4: Do Table = N x c

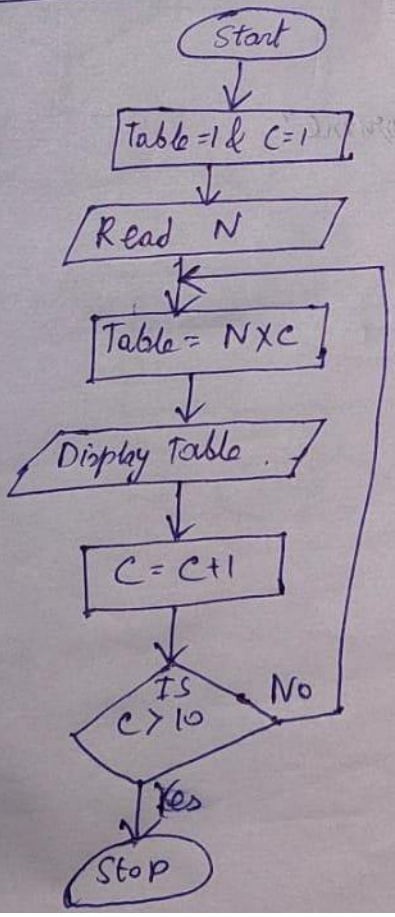
Step 5: Display Table

Step 6: c = c+1

Step 7: Check if c > 10, if yes goto step 8, & if no goto step 4

Step 8: Stop

Flow chart :



e) Check if the given number is Prime or not.

Algorithm :

Step 1 : Start

Step 2 : Read n

Step 3 : Set i = 2

Step 4 : Repeat step 5 & 6 until i < n

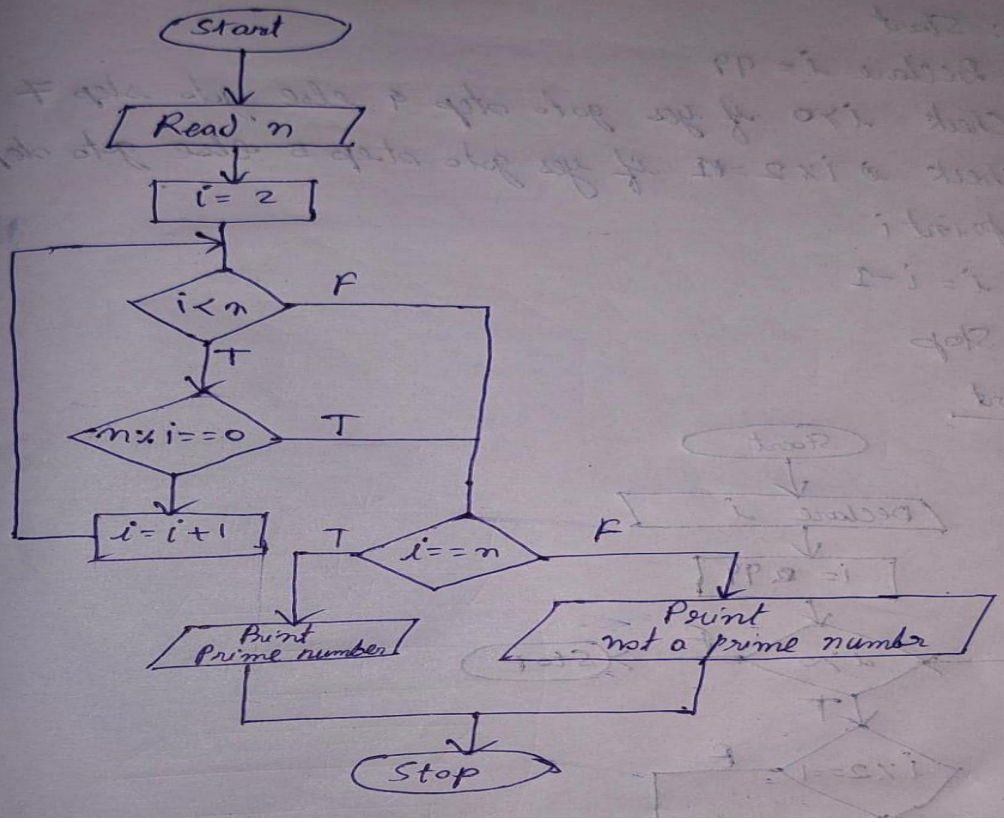
Step 5 : If n % i == 0 then Go to step 7
else Goto step 6

Step 6 : Set i = i + 1

Step 7 : if i == n then
print "number is prime"
Else
print "number is not prime"

step 8 : Stop.

Flowchart of Prime number



f) Print odd numbers backward from 99 to 1.

Step –1: Start

Stp2: Declare i = 99

Step3: Check i>0 if yes goto step 4 else goto step 7

Step4 Check if i%2==1 if yes goto step 5 else goto step 6

Step 5: print i

step 6: i = i–1

Step 7: Stop

Flow chart