

Assignment → 1

Date:

01/03/22

Page No.:

Q.1 Check the given Number is Even or odd.

Algorithm.

Step 1 → Start.

Step 2 → divide the number by 2

Step 3 → check the remainder.

Step 4 → if remainder is 0 ~~goto step 5~~

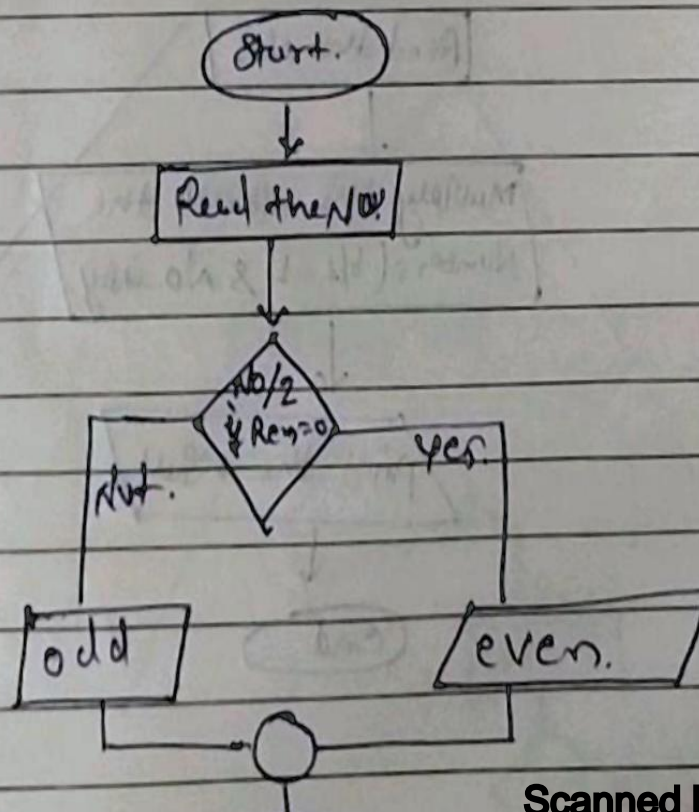
Step 5 → then print even and goto step 8

Step 6 → if remainder is not 0

Step 7 → then print odd

Step 8 → End

Flowchart.

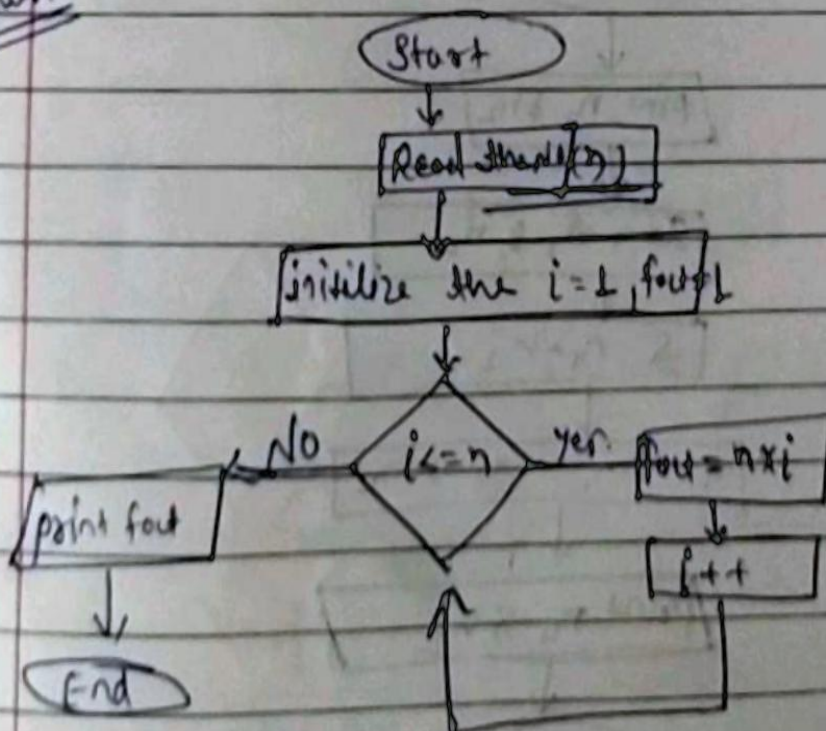


Q2 W.r.t. a program to find factorial of number.

Algorithm

- Step 1 Start
- Step 2 Read the number n
- Step 3 initialize the variable $i=1$
- Step 4 if $i \leq n$ then step 5 otherwise go to step 8
- Step 5 $fact = n \times i$
- Step 6 Increase the value of i
- Step 7 again go to step 4
- Step 8 print the value of factorial
- Step 9 End

Flowchart



Q3 find the factorial of a number using recursion.

Algorithm

Step (1) Start

Step (2) Read the Number.

Step (3) Call the factorial(n)

factorial(n)

if factorial(n) = 1

return 1

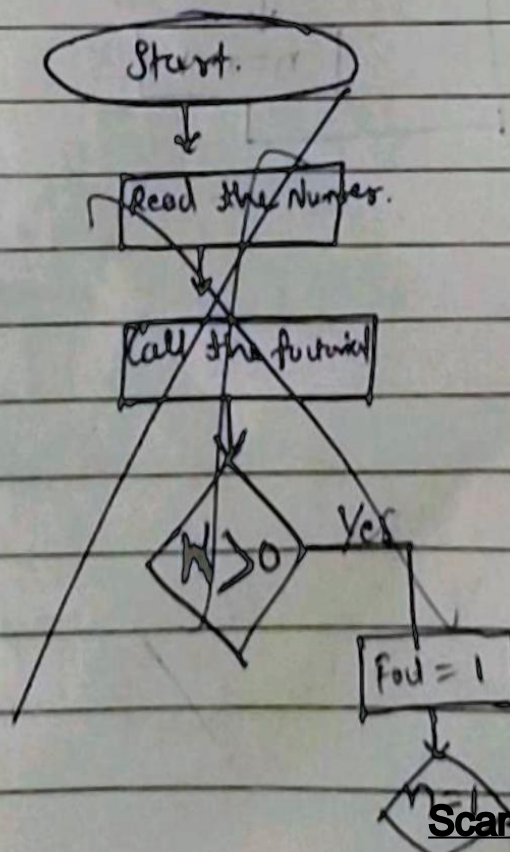
else

factorial = $n \times (n-1)!$

Step (4) print factorial Value

Step (5) End

~~Flowchart~~

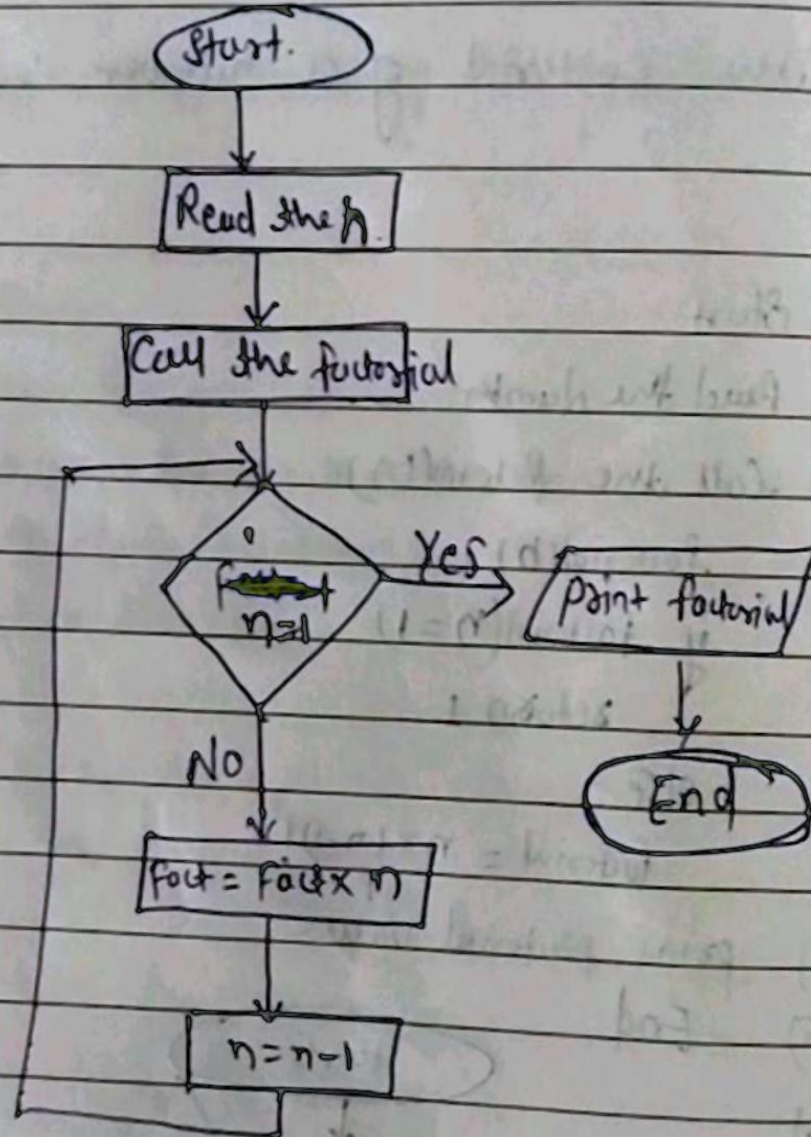


Date: _____

Page No.: _____

Q.2

flow chart



④ Swap two Numbers using ^{without} using third variable approach.

Algorithm

Step 1 Start

Step 2 Enter the Numbers (N_1 , N_2)

Step 3 Read the Numbers

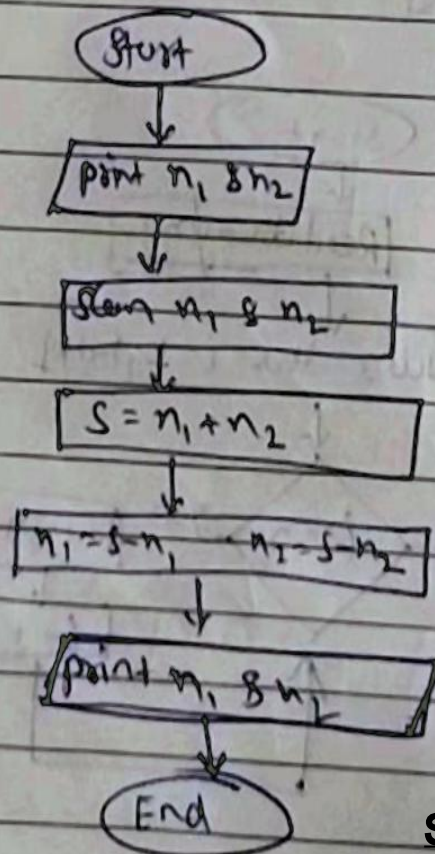
Step 4 Add both the Numbers (S)

Step 5 $N_1 = S - N_1$, $N_2 = S - N_2$

Step 6 print N_1 & N_2

Step 7 End.

Flow chart

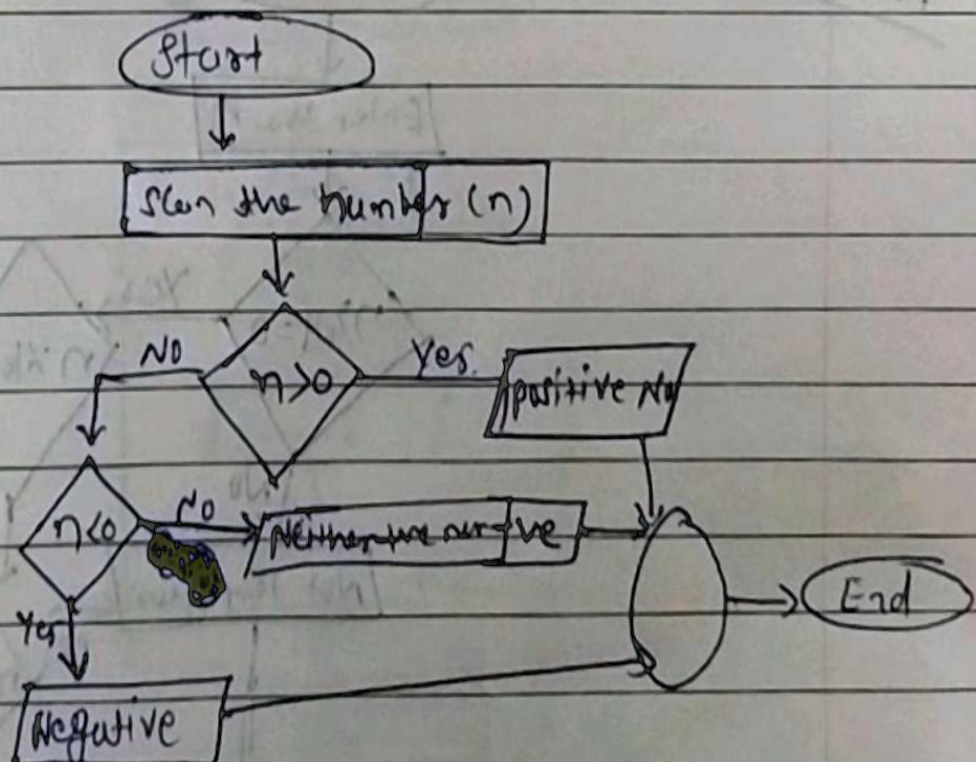


⑤ How check the given Number is positive or Negative in java.

Algorithm

- Step 1 Start
Step 2 Read the Number (n)
Step 3 if ($n > 0$) else go to step 5
Step (4) print positive number. go to step 8
Step (5) ~~print~~ if ($n < 0$) else go to Step 7
Step (6) print negative Number. go to step 8
Step (7) print neither positive nor negative.
Step (8) End

flow chart

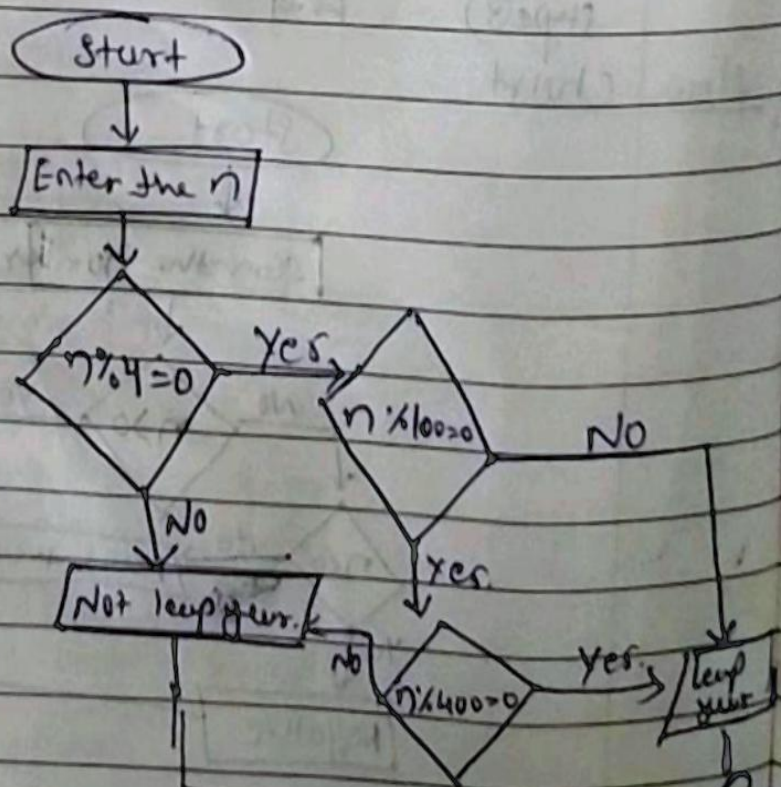


Q.6 Write a program to find whether given number is a leap year or Not?

algorithm

- Step 1 Start. ~~Start~~
- Step 2 Enter the number.
- Step 3 divide the number by 4 if $R=0$ then step 4 otherwise step 2
- Step 4 Check whether the no. is multiple of 100 if Not step 6
- Step 5 divide the Number by 400 if $R=0$ then if Not step 6
- Step 6 print leap year otherwise
- Step 7 ~~End~~ print Not a leap year.
- Step 8 End.

flow chart



Q.7 W. & P Java program to print 1 to 10
Without using loop.

Algorithm

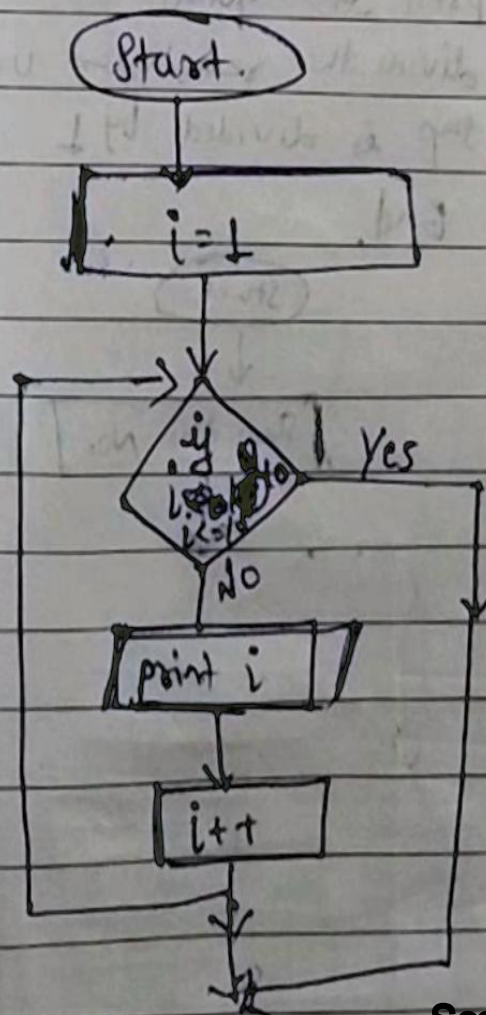
Step 1 Start

Step 2 intillilize i=1

Step 3 for(i=1 i<=10 i++)

Step 4 print(i);

Step end;

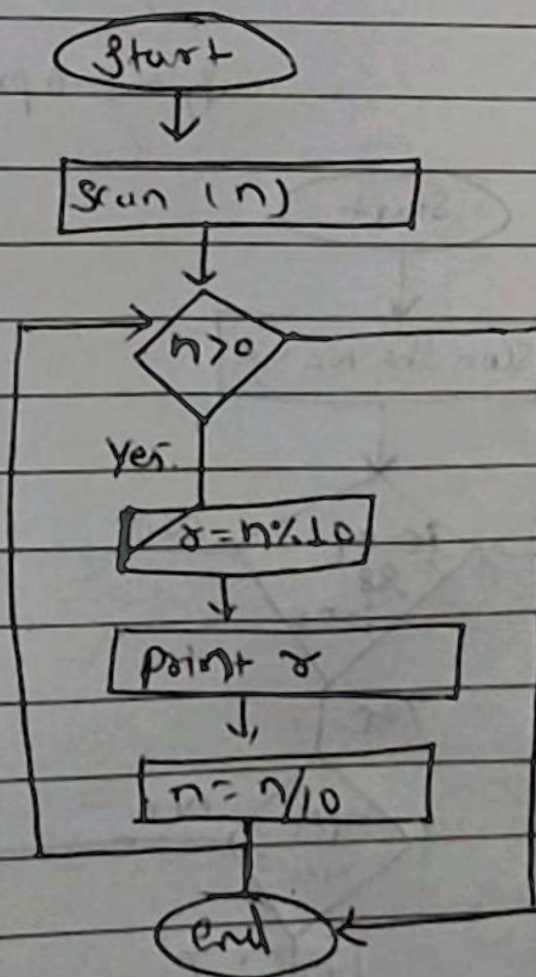


Date: _____

Page No.: _____

8. Write a program to print the digit of a number

- Step 1 Start
- Step 2 Scan the number
- Step 3 divide the number by 10 ($n > 0$)
- Step 4 print remainder
- Step 5 Save $n = n/10$
- Step 6 again go to step 3 with n
- Step 7 Stop.



factor of the No.

Q.9

algorithm

Step 1 Start

Step 2 Scan the Number

Step 3 ~~Divide the number~~ initialize $i = 1$

Step 4 ~~divide if~~ $N \% i = 0$ $i++$

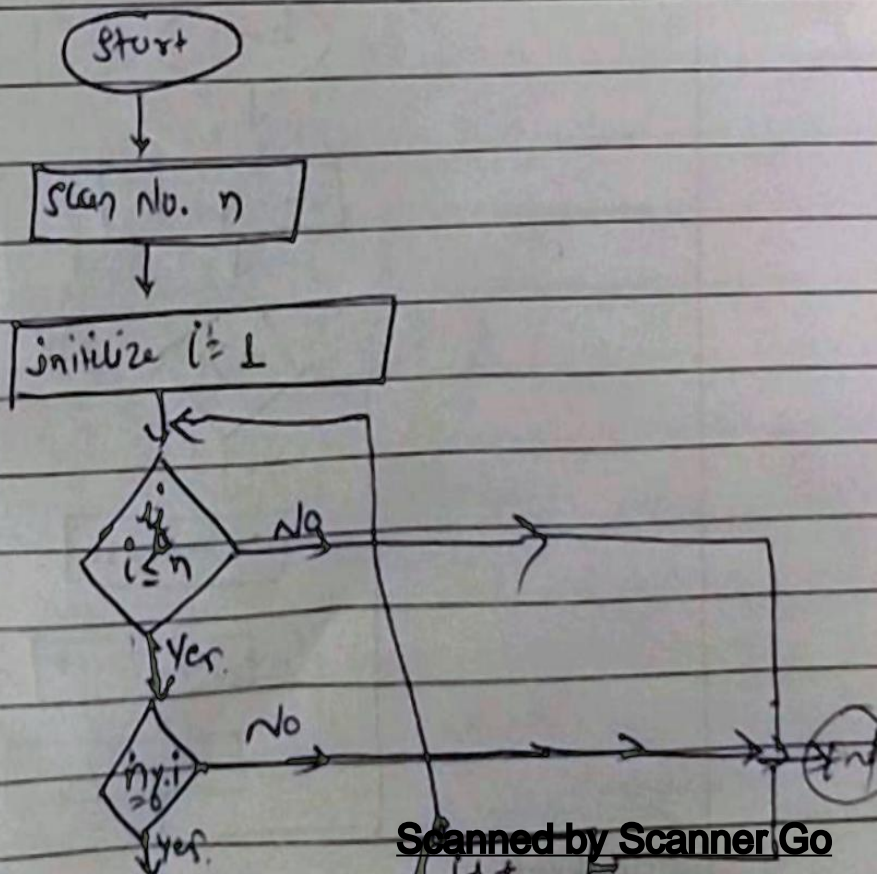
Step 5 ~~again go to~~ point i ~~again go to~~ step 4

Step 4 if $N \% i \neq 0$ without printing go to step 4

Step 5 repeat the process till $i = N$

Step 6 End.

flow chart



Q.10 W.r.t. a program to find sum of the digits of a given Number.

algorithm

Step 1 Start

Step 2 Scan the Number n

Step 4 if $n > 0$ if not goto step 8

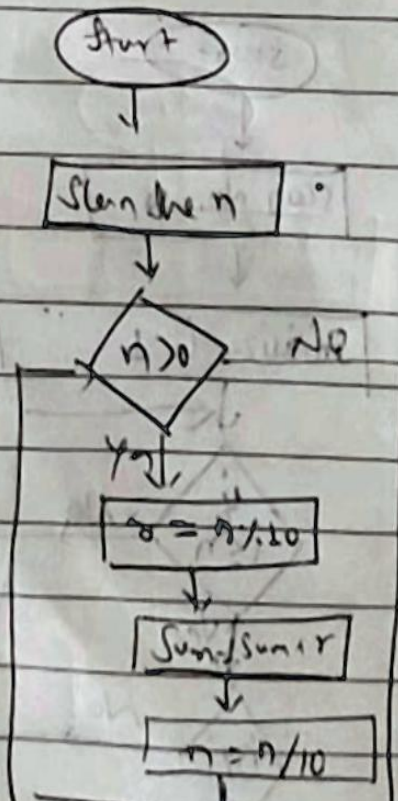
Step 5 $m = n \% 10$

Step 6 $Sum = Sum + m$

Step 7 Remainder = m again goto 5

Step 8 print Sum

Step 9 End

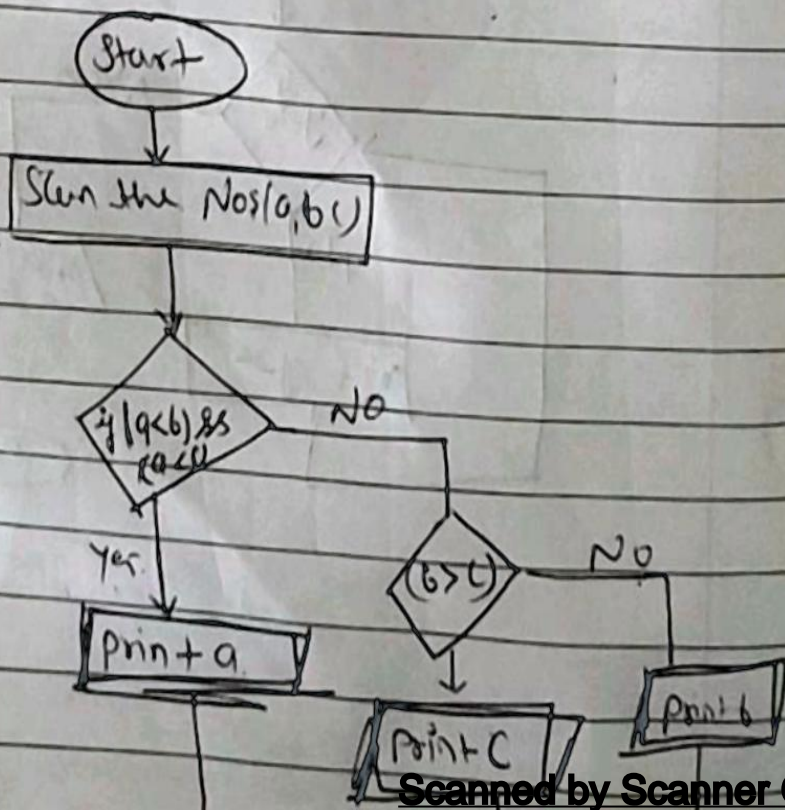


91

3 No is Smallest.

algorithm,

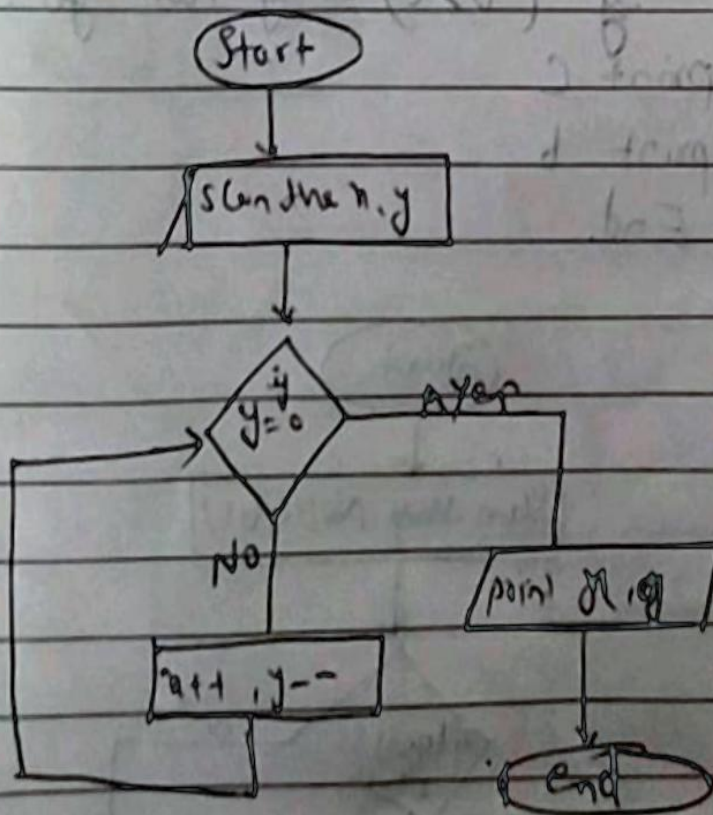
- ① Start.
- ② Scan the Numbers a, b, c
- ③ if $(a < b)$ & $(a < c)$ if not go to step 5
- ④ print a go to step
- ⑤ ~~if~~ else
- ⑥ if $(b > c)$ if not go to step 8
- ⑦ print c
- ⑧ print b
- ⑨ End.



(12) add No without using arithmetic operator.

algorithm

- ① Start
- ② Scan the two number.
- ③ $x++$, $y--$
- ④ perform till $y=0$
- ⑤ print x
- ⑥ end.



120 → 2
102
10

Date: _____

Page No.: _____

Q13) Reverse the number.

- ① Start
- ② Scan the no. *define int n, r*
- ③ while ($n > 0$)
- ④ $r = n \% 10$
- ⑤ print r
- ⑥ $n = n / 10$
- ⑦ again go to step 3
- ⑧ End.

Start

Scan the no.

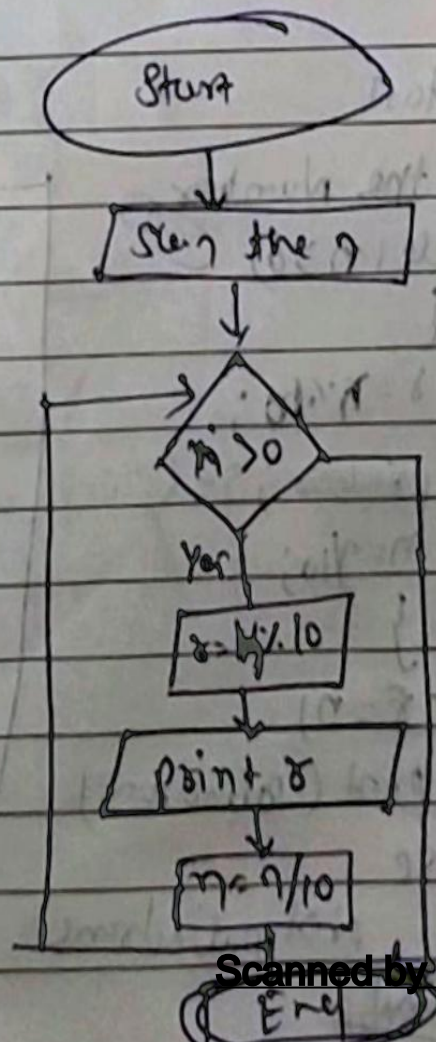
While loop ($n > 0$)

{

$r = n \% 10;$

print r
 $n = n / 10;$

}



Date: _____

Page No.: _____

~~Q 16~~ ~~8/17~~ Write to find the HCF of 2 Nos.

~~Step 1~~
~~Step 2~~
~~Step 3~~
~~Step 4~~
~~Step 5~~
~~12 = 81~~
~~(9)~~

~~Start~~
~~Scan the Numbe (n, n₂)~~
~~initialize (gcd)~~
~~for (i = 1; i <= n₁ && i <= n₂; i++)~~
~~if (n₁ % i == 0 && n₂ % i == 0)~~
~~gcd = i;~~
~~print gcd~~

Start

Scan the Numbe (n, n₂)

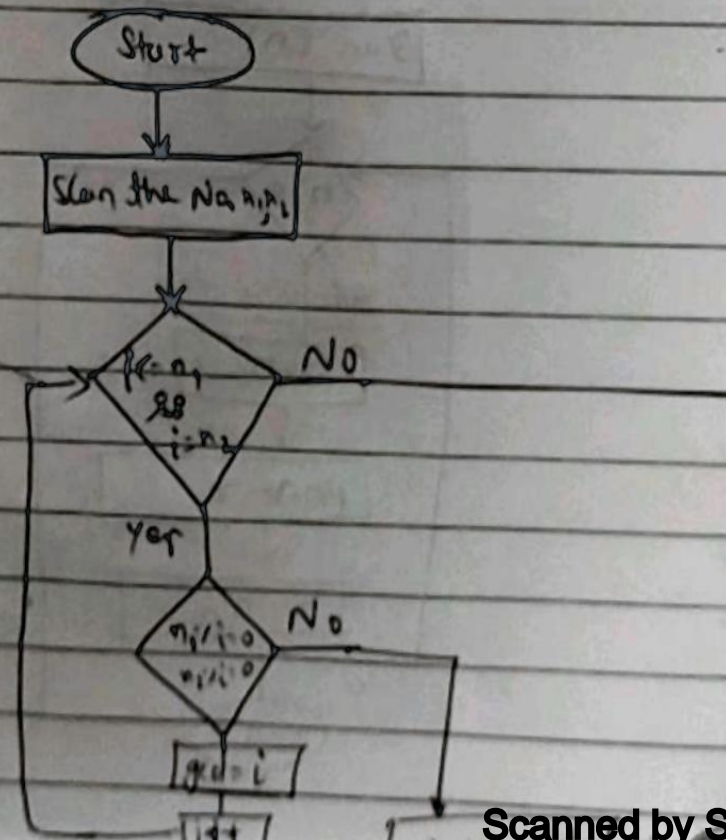
initialize (gcd)

for (i = 1; i <= n₁ && i <= n₂; i++)

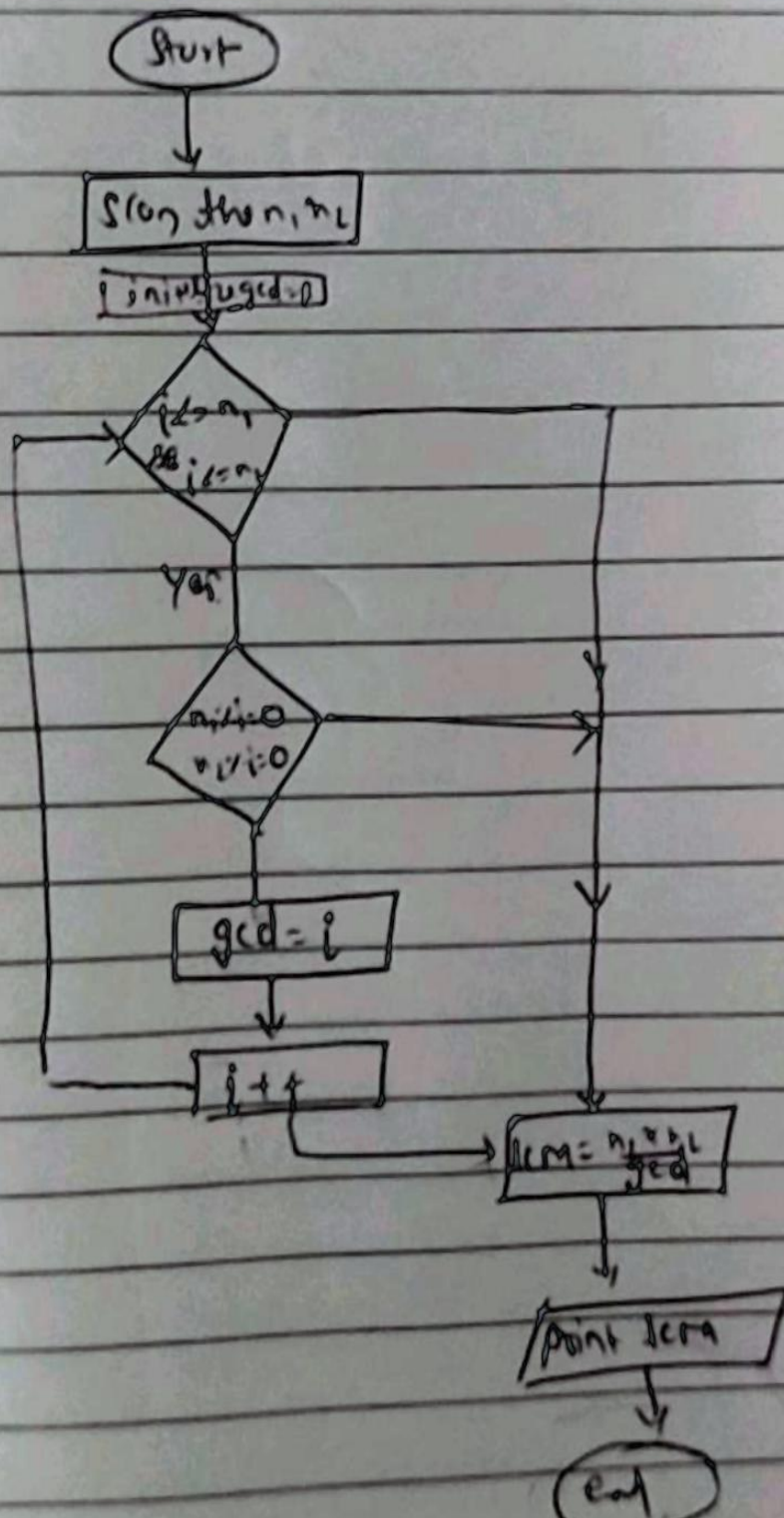
if (n₁ % i == 0 && n₂ % i == 0)

gcd = i;

print gcd



Q: LCM of two Numbers



~~Start~~

~~Scan both the number n, & n~~
~~Run the loop for 1 to max n, &~~
~~check whether the number is~~
~~the completely or not~~

Start

Scan both the number n , & n
Run the loop for 1 to max n , &
check whether the number is
the completely or not

Palindrome

Start

Scan the Number

while ($n > 0$)

$n = 4$

$r = n \% 10$;

~~print~~; $S = (S * 10) + r$

$n = n / 10$;

if ($S = n$)

print ("Palindrome")

else

Not palindrome

End

penkroft

Start

$n > 0$

Not

$r = n \% 10$

Print r

$n = n / 10$

$r = n$

No

Date: _____

Page No.: _____

To print the following series even number
Series 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100

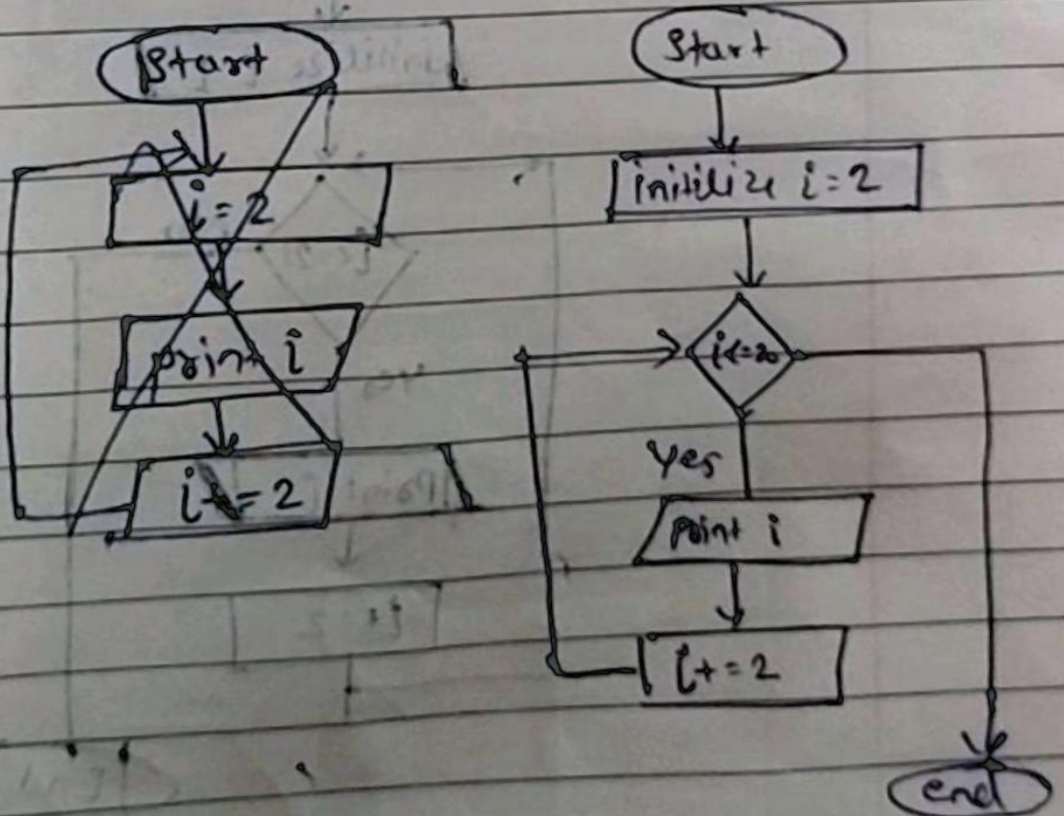
Start

if $i = 2$; $i < 100$; $i = i + 2$

print i ;

End.

Flow Chart



20 To print the following Series Odd Series
1, 3, 5, 7, 9 ---

Step 1

~~Start~~

Start

Step 2

~~for (i=1; i<=21; i+=2)~~

initialize i = 1, condition i <= 21, i += 2

Step 3

~~↓~~

print i

Step 4

~~print i~~

End.

flow chart

