Assignment No. 1

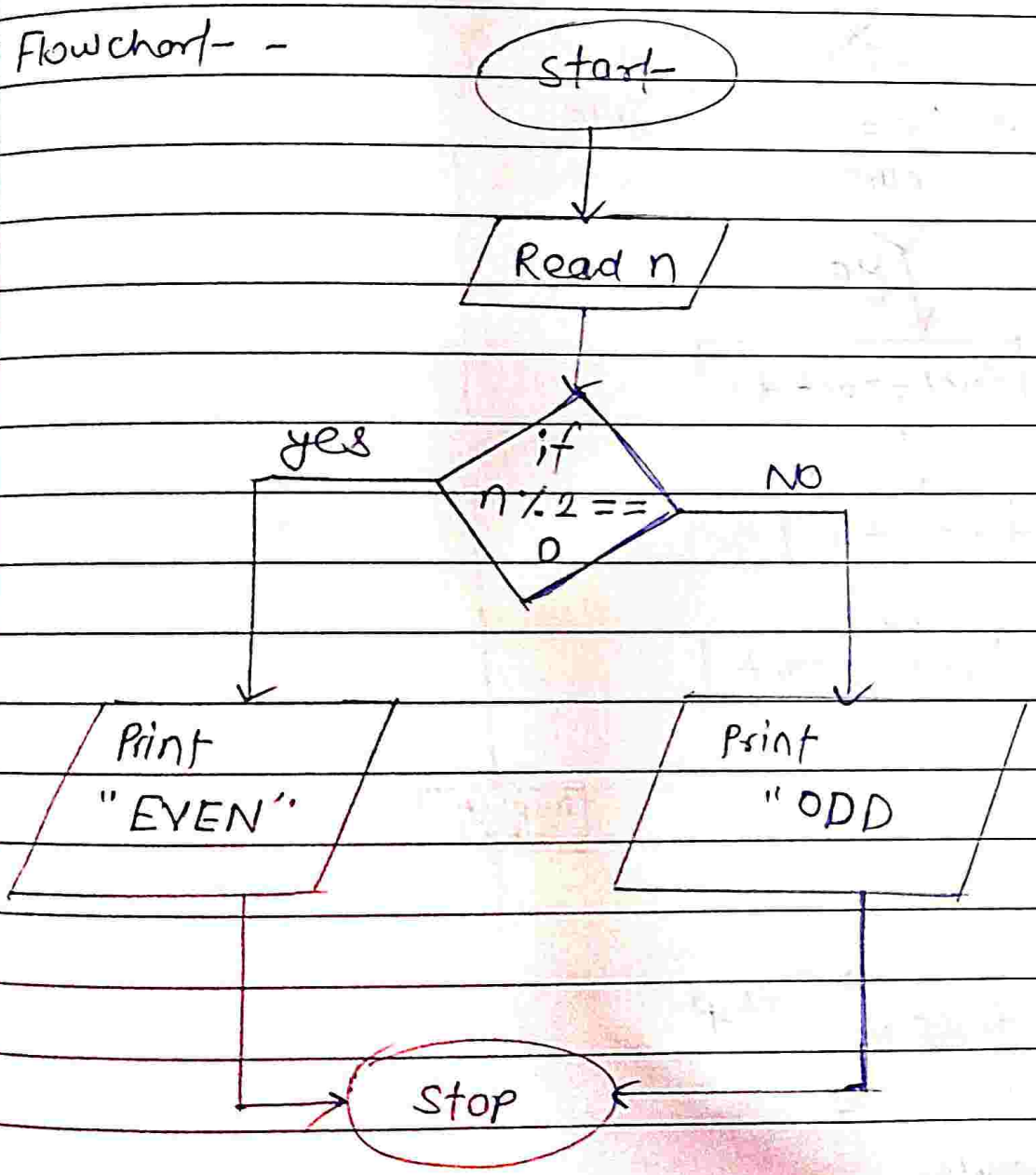
DOMS | Page No.
Date / /

1. check if the given no. is Even or ODD

Algorithm -

1) Start
2) Read n
3) if (n % 2 == 0) then print-
   else print ODD
4) Stop

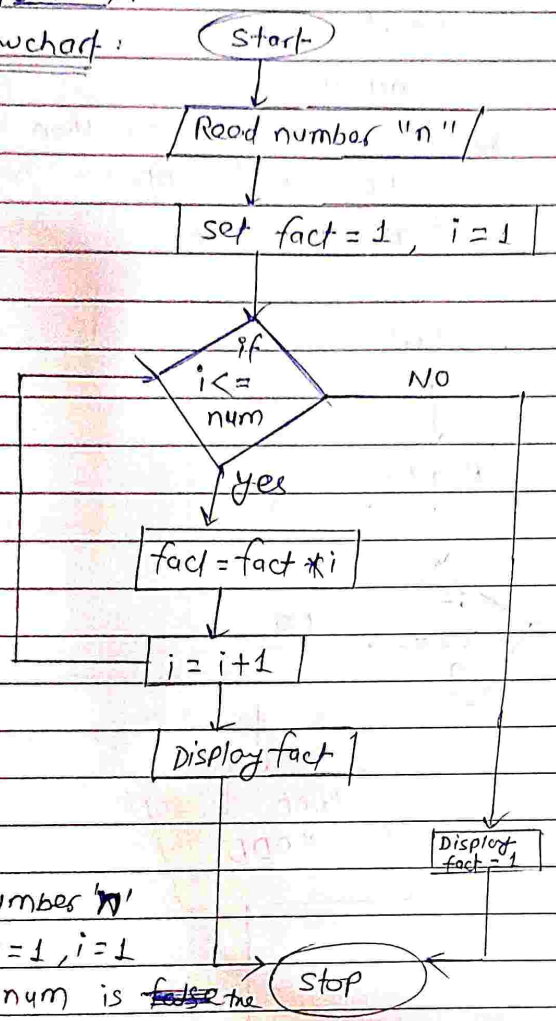
Flowchart- -



2. write a java program to find factorial of a given no.

~~Algorithm~~ :

Flowchart :



Algorithm :

① Start

② Read number 'n'

③ set fact = 1, i = 1

④ if i<=num is ~~false~~ true then display fact ~~=1~~

⑤ else i<=num is false then display fact = 1;

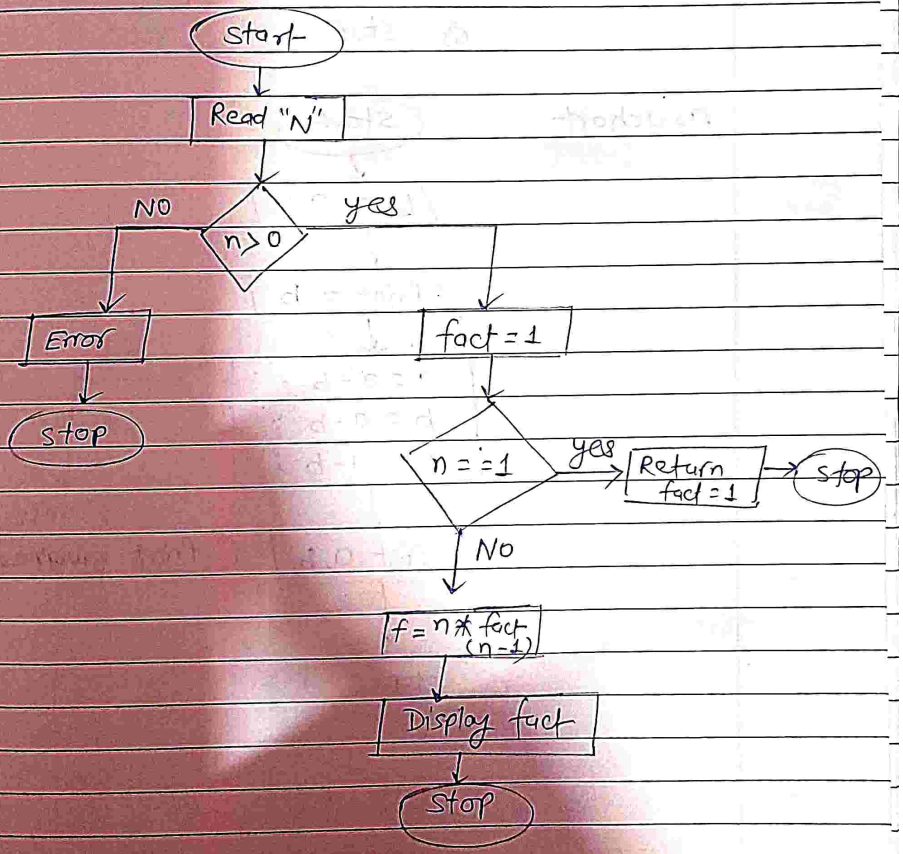
⑥ stop

DOMS | Page No.
Date / /

Factorial of a number using recursion

Algorithm :

1) Start
2) Read number "N"
3) if n==1 then return 1
   else f= n * factorial (n-1)
4) Display fact
5) Stop



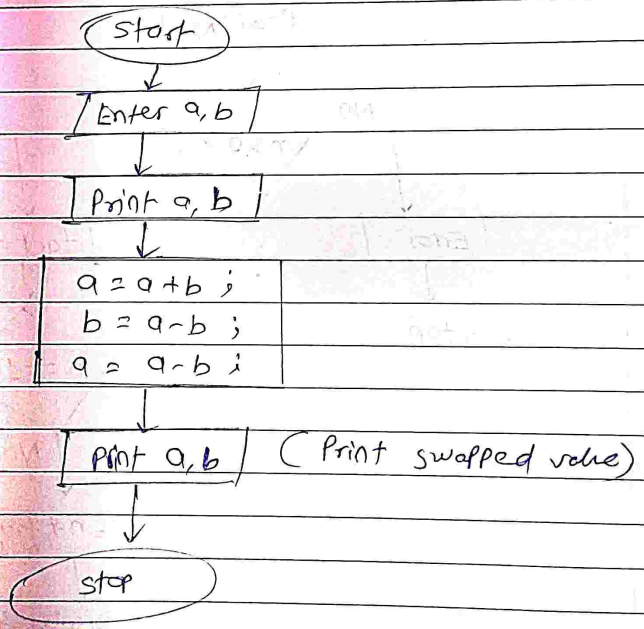
DOMS | Page No.
Date / /

1) swap to numbers without using third variable

Algorithm –

1) Start
2) Enter a, b
3) Print a, b
4) a = a + b ;
   b = a - b ;
   a = a - b
5) Print a, b (After above operation
6) stop

Flowchart

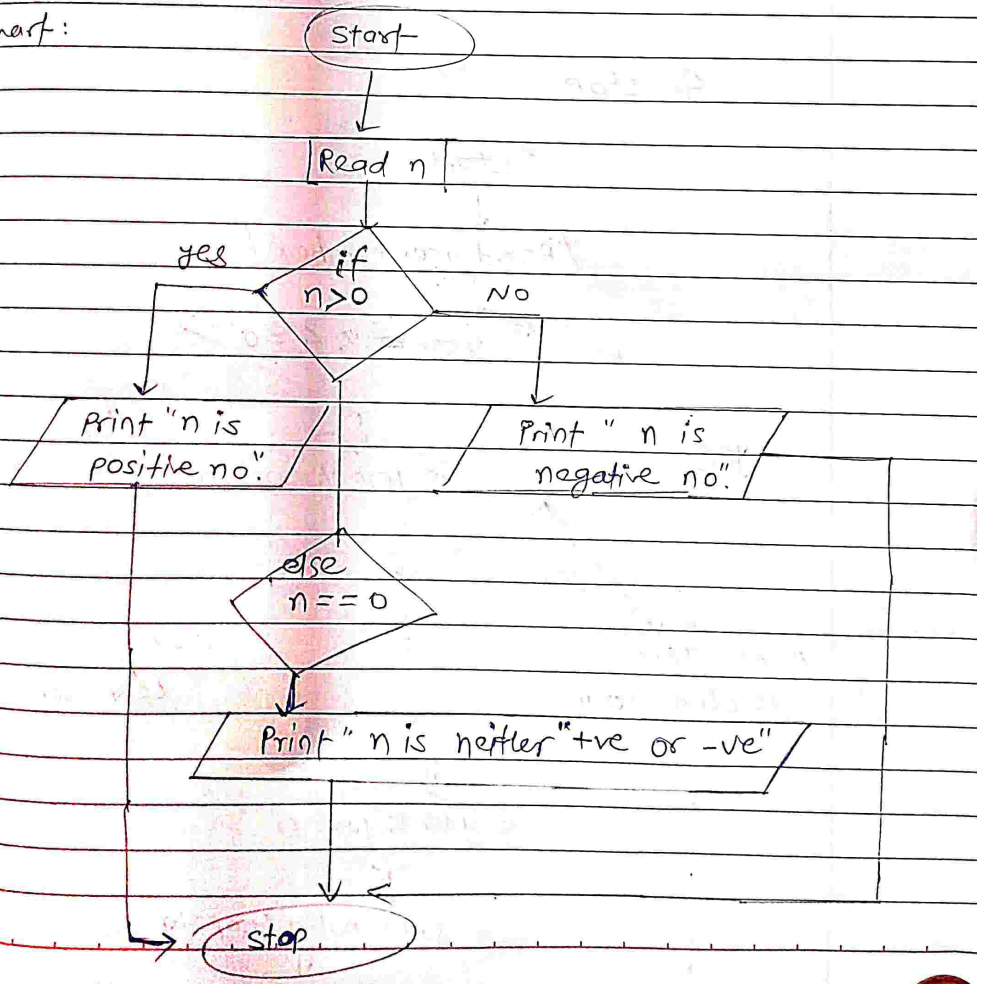


DOMS | Page No.
Date / /

5) How to check whether given number is "+ve" or "-ve" in java.

Algorithm:
1) start
2) Read n
3) if (n > 0) then print 'n' is positive
else if n < 0 then print 'n' is negative
else (n == 0) then print "zero is neither positive or negative"
4) Stop

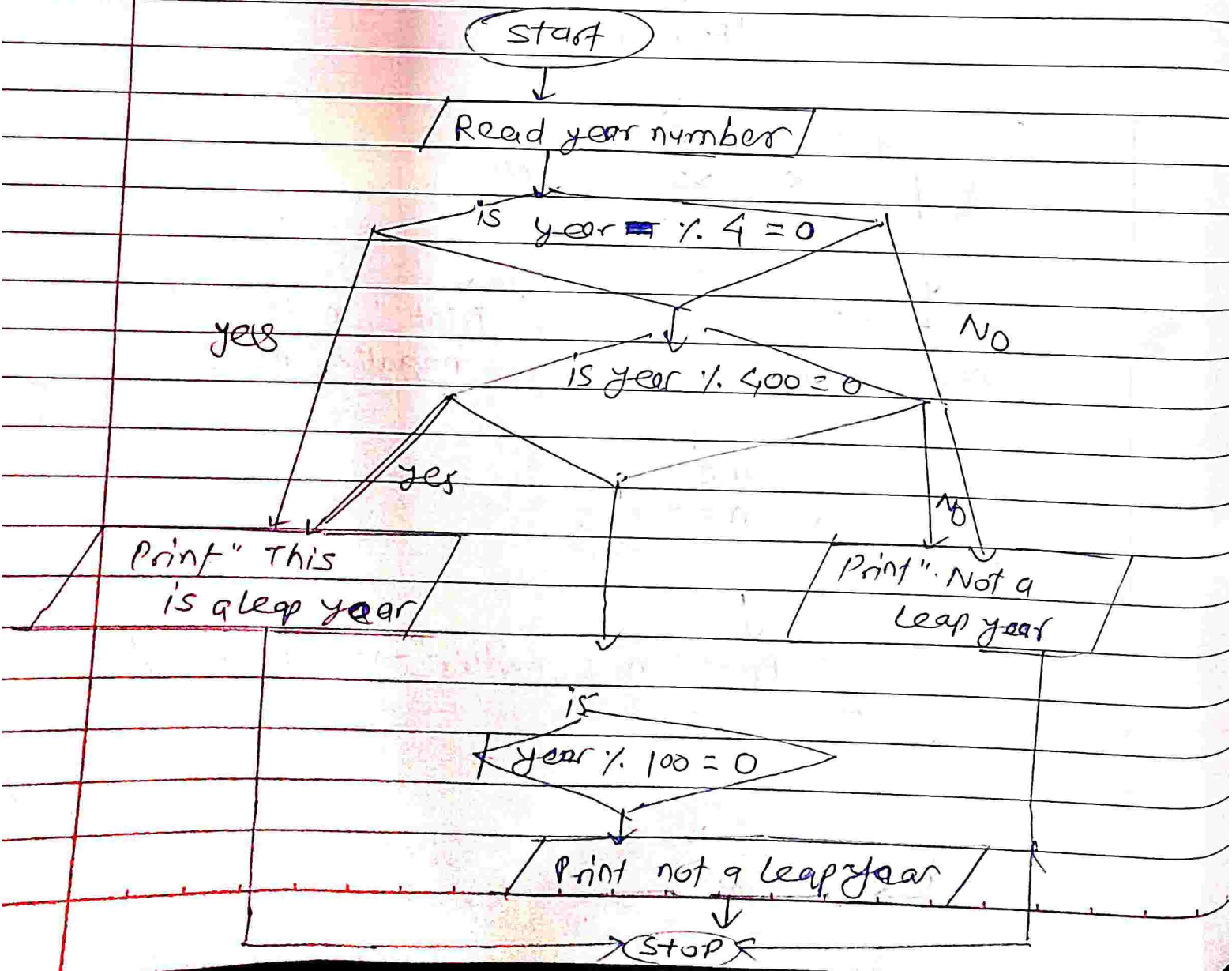
Flowchart:



DOMS | Page No.
Date / /

6. write a java program to find whether a given no. year is Leap year or NOT.

Algorithm :
1) start
2) Read year Number
3) if year %. 4 = 0 then print it is a leap year
else if year %. 400 = 0 then print it is a leap year
else year %. 100 = 0 then print it is not a leap year
4) stop

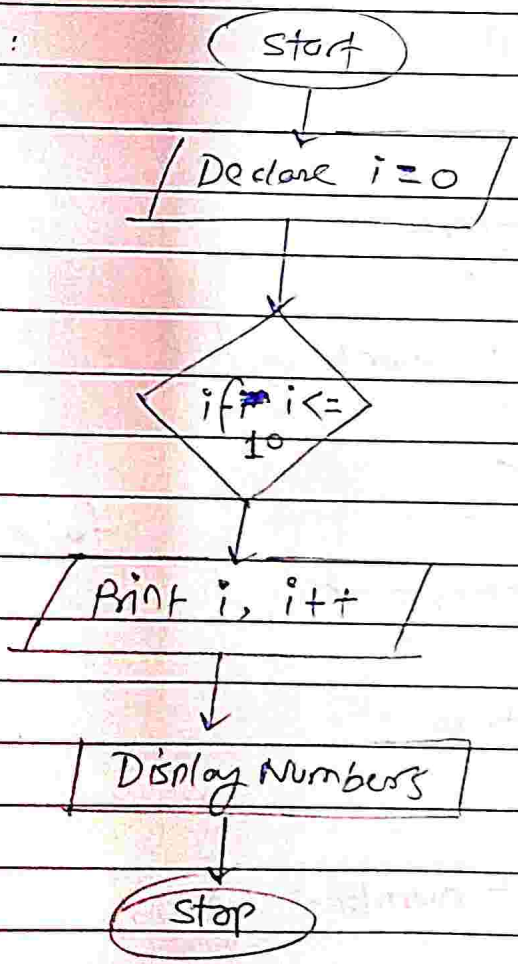


DOMS | Page No.
Date / /

7. write a java program to print 1 to 10 without using Loop.

Algorithm
1) start
2) declare variable i = 0
3) if (i <= 10)
print i, i++)
4) Stop

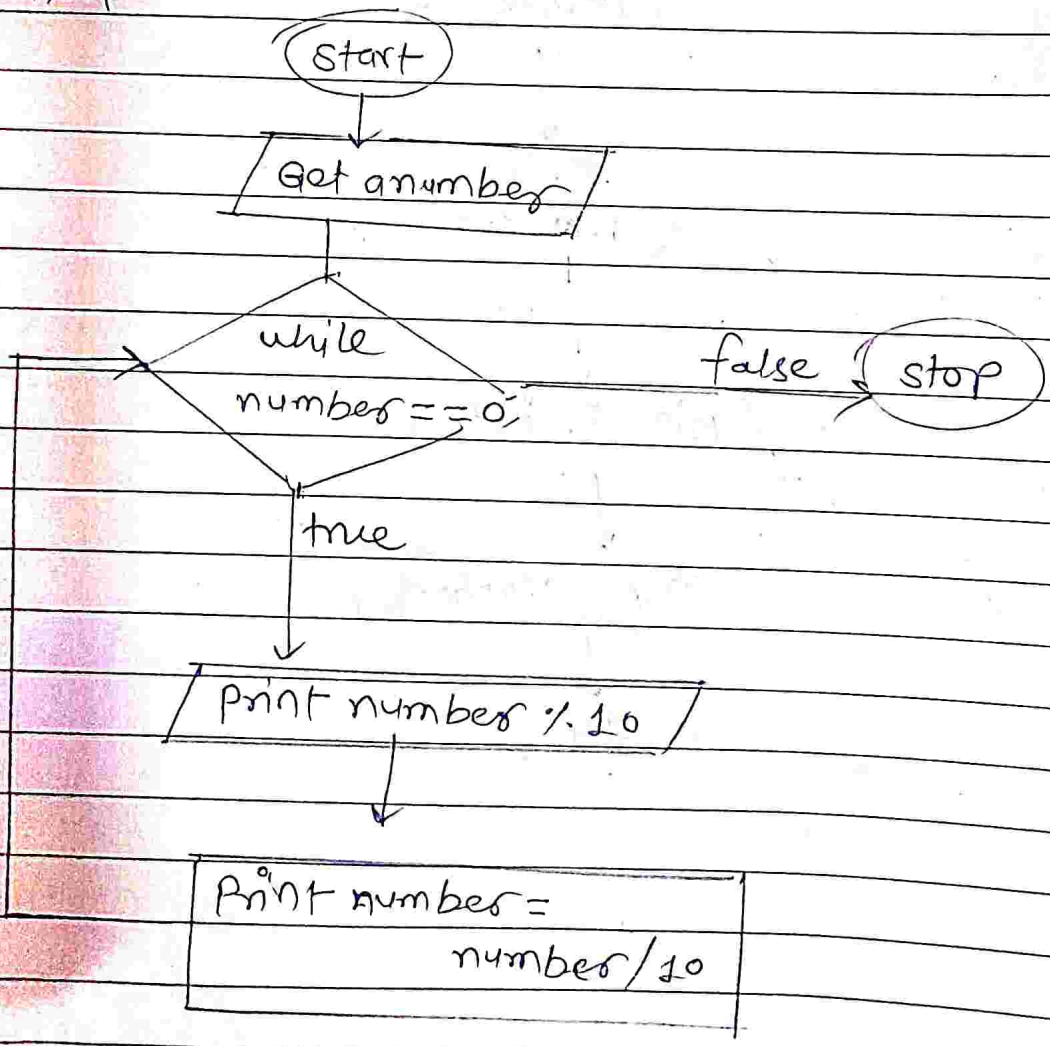
Flowchart :



8. write a java program to print the digits of a given number.

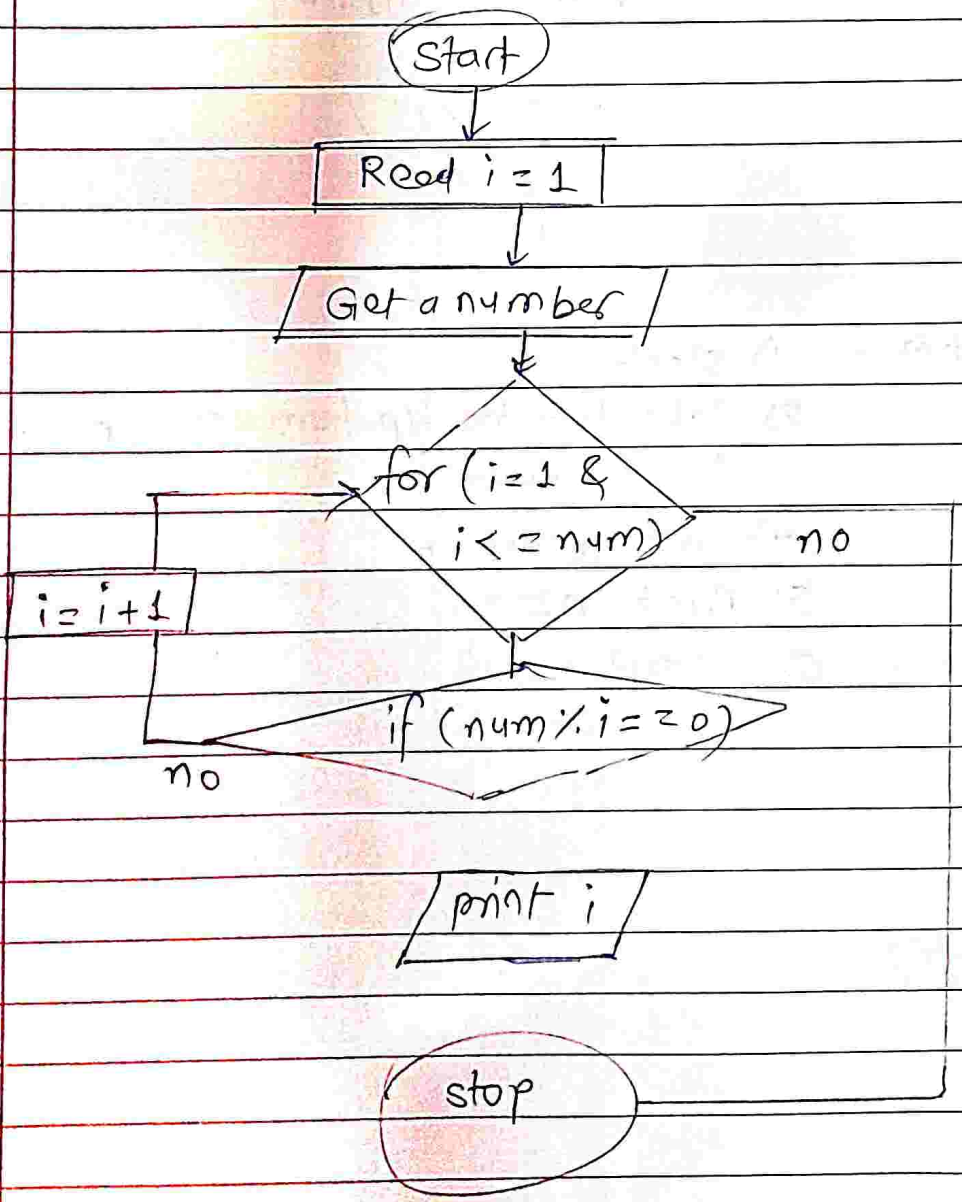
Algorithm - 1) Start-
2) Get a number
3) Print the value of no % 10
4) Number = number / 10
5) Repeat step 3 to 4 until no ≠ 0
6) Stop

Flowchart -



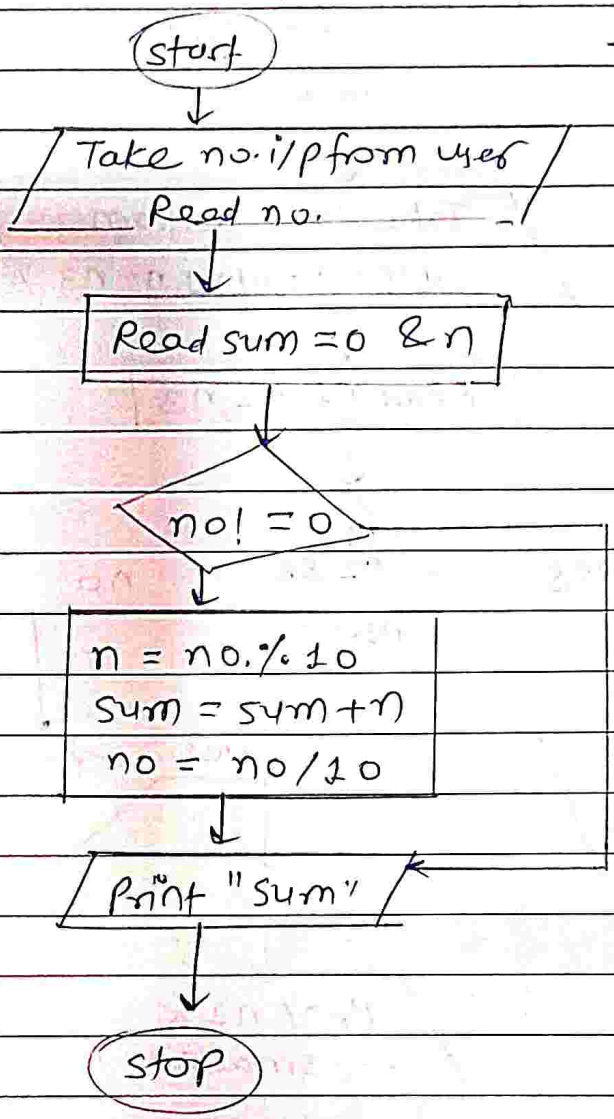
Q.9 write a java program to print all factors of given no.

Algorithm –
1) Start
2) Get a number
3) Declare i = 1
4) check number % i == 0 if true print i & increment the value of i
5) Repeat step 4 until i <= number
6) stop



write a java program to find sum of digits of number

Q.10



⟸ Flowchart

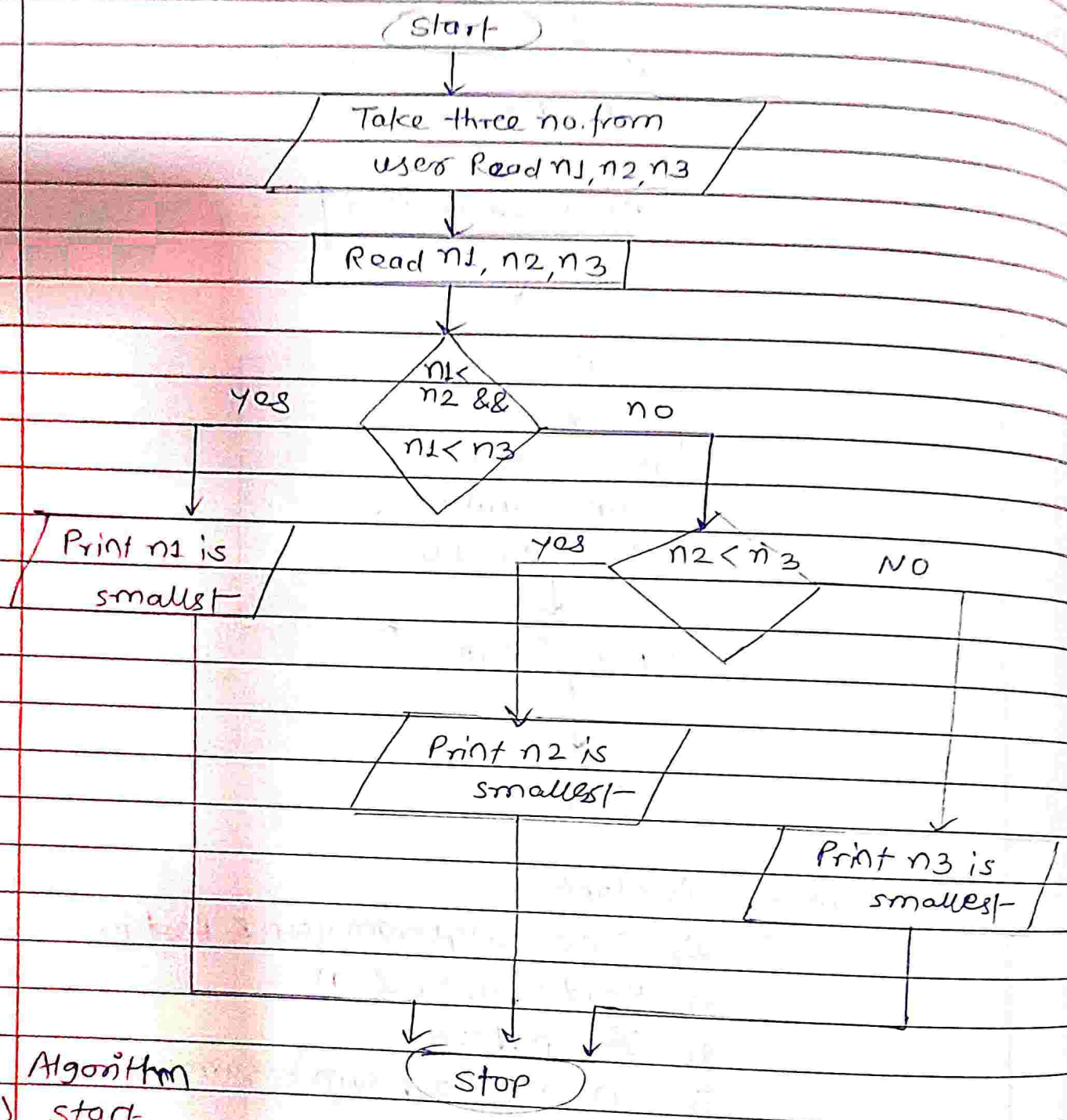
Algorithm –

1) start
2) Take no. i/p from user & Read the no.
3) Read sum = 0 & n
4) no! = 0
5) n = n % 10 ; sum = sum + n , no = no / 10
6) Print "sum"
7) stop

2015 | Page No.
Date / /

Q.11 Smallest of 3 No.

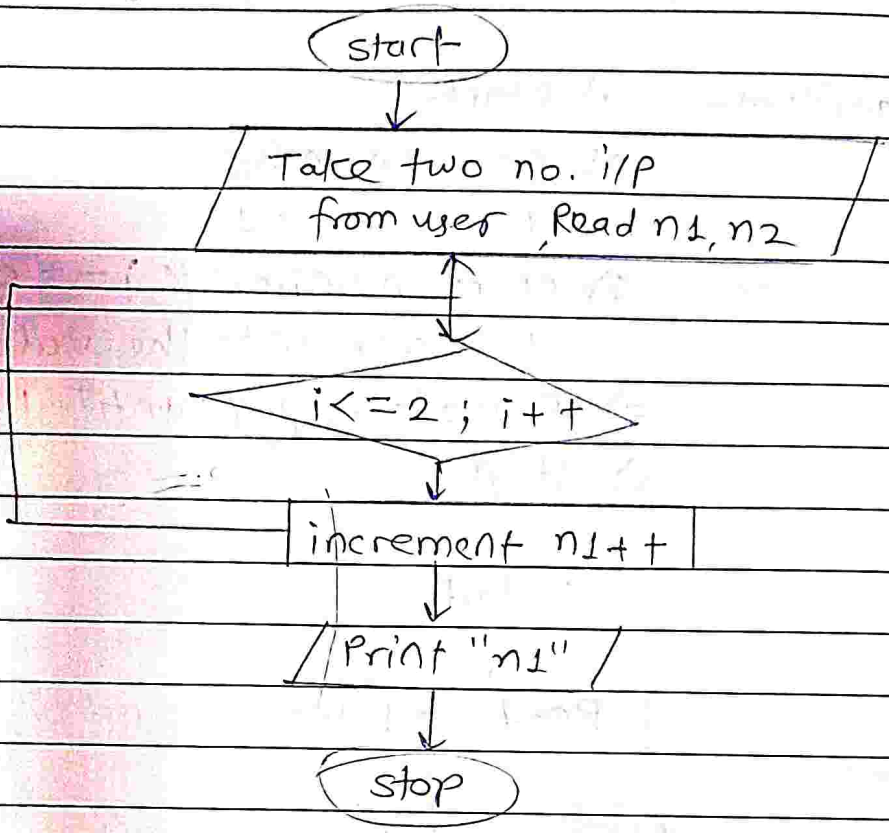
Flowchart-



Algorithm

1) start
2) Take three no. n1, n2, n3
3) if n1 < n2 && n1 < n3
   else n2 < n3
4) Print the smallest number
5) Stop

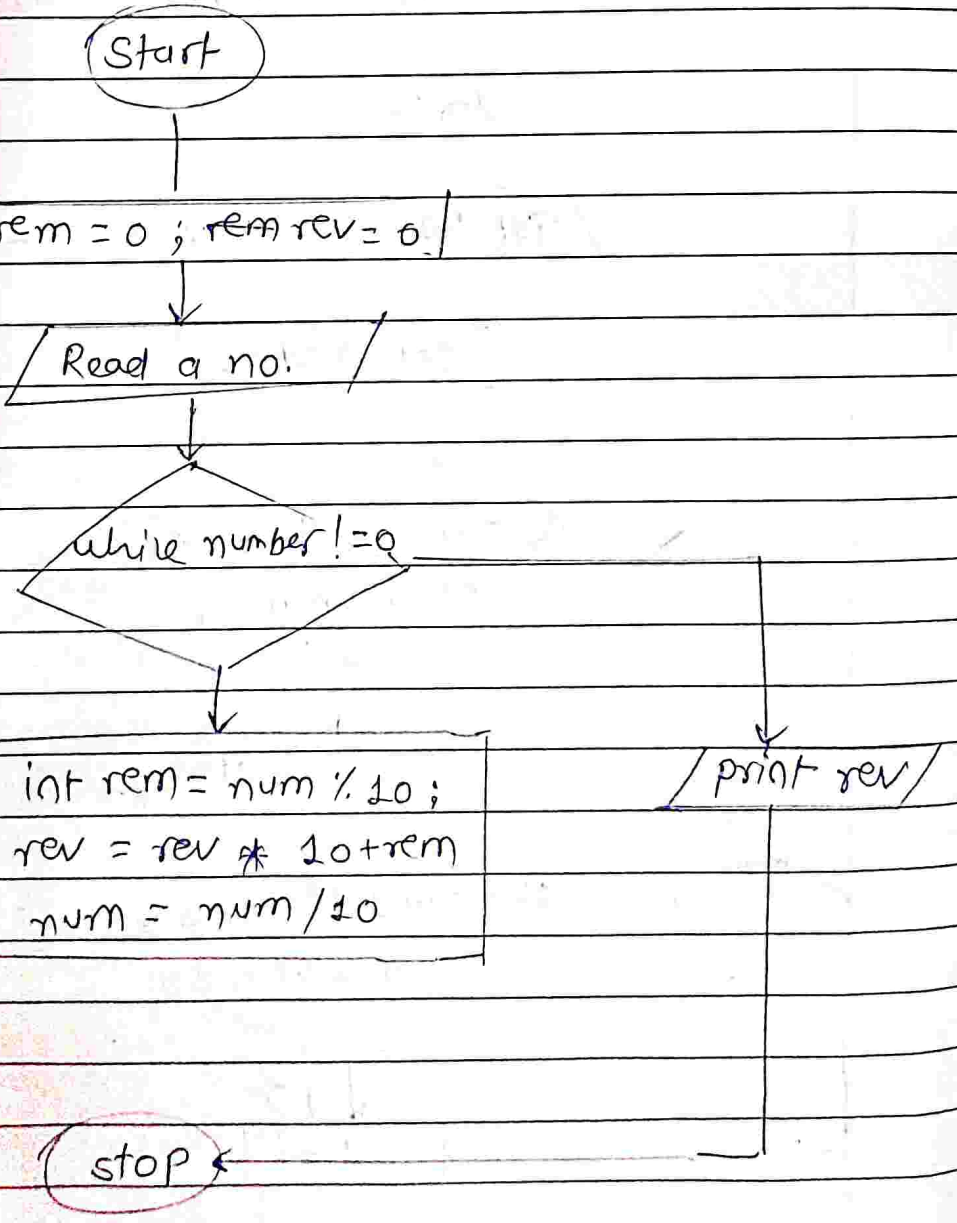
12) How to add two numbers without using the arithmetic operators in java



Algorithm –
1) start
2) Take two no. i/p from user, Read n1, n2
3) i<=2; i++
4) increase n1++
5) Print n1
6) stop

Q.13

1) Start
2) Read a number
3) Set rem = 0 ; rev = 0
4) while (number != 0)
   a) int rem = num % 10
   b) rev = rev * 10 + rem
   c) num = num / 10
5) Print rev
6) Stop



14) GCD of two numbers.

Algorithm - 1) Start

2) Get two number, num1, num2

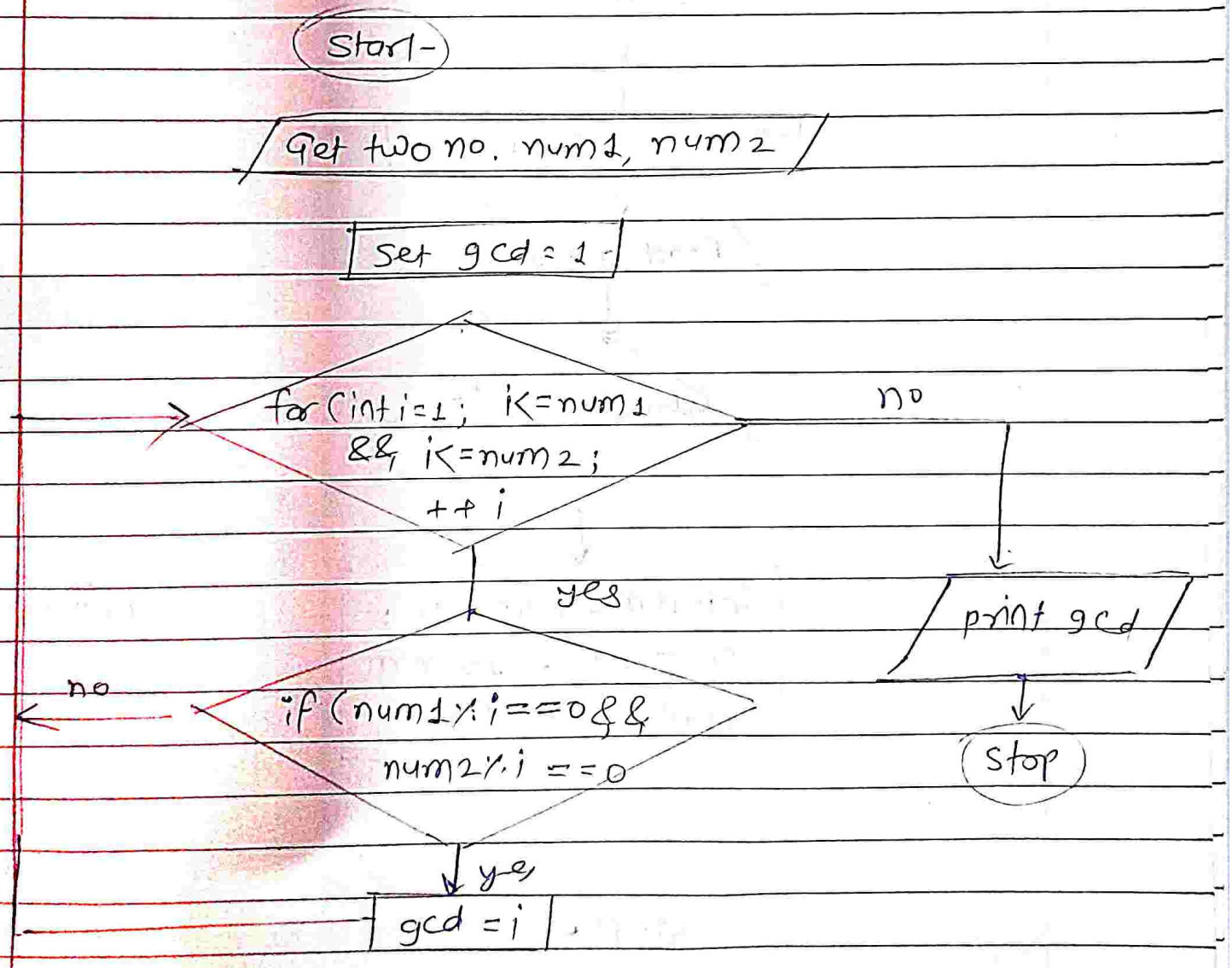
3) set gcd = 1

4) for (int i = 1 ; i <= num1 && i <= num2 ++i)

if (num1 % == 0 && num2 % i == 0)

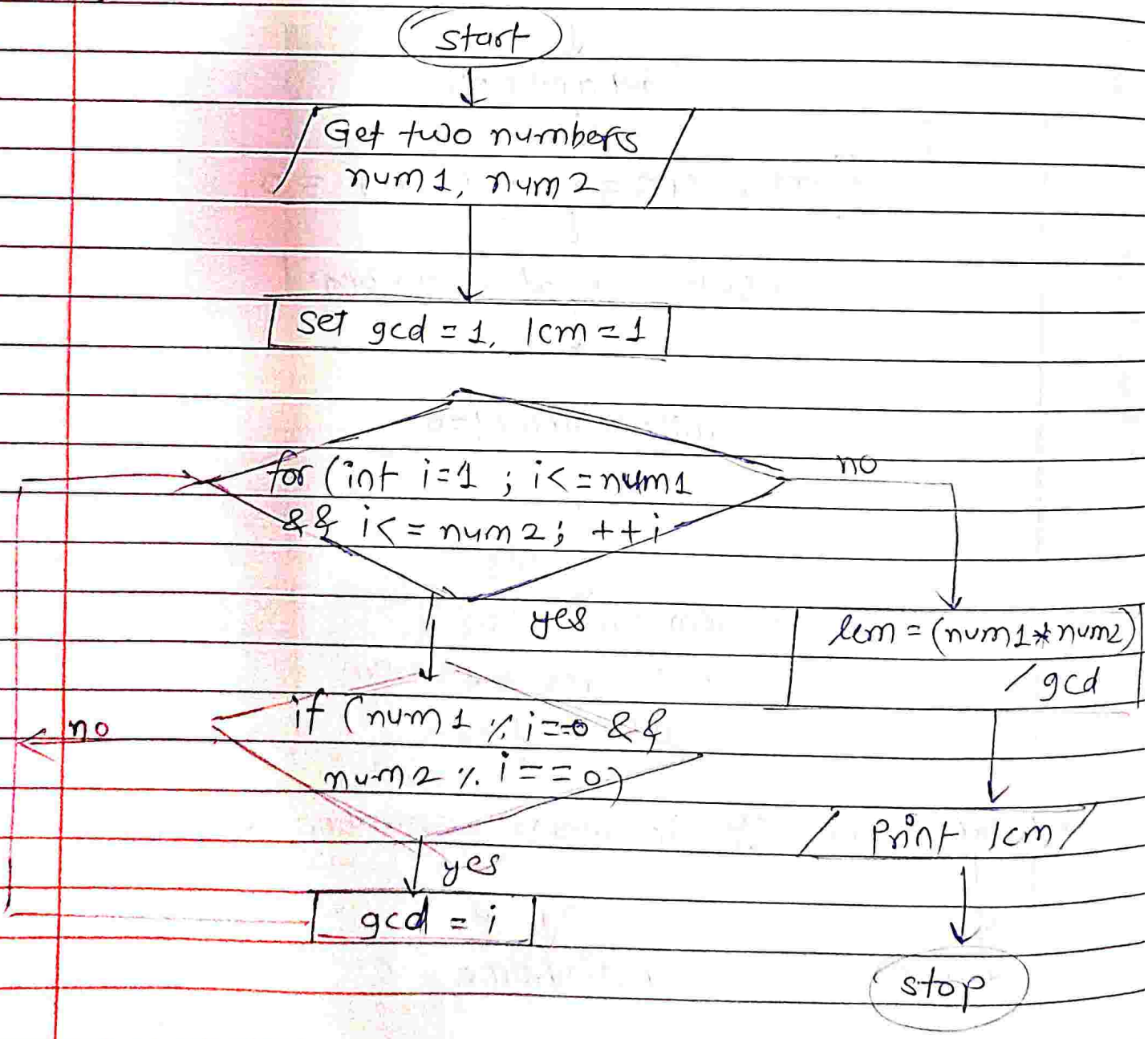
set gcd = i

5) Print GCD 6) stop



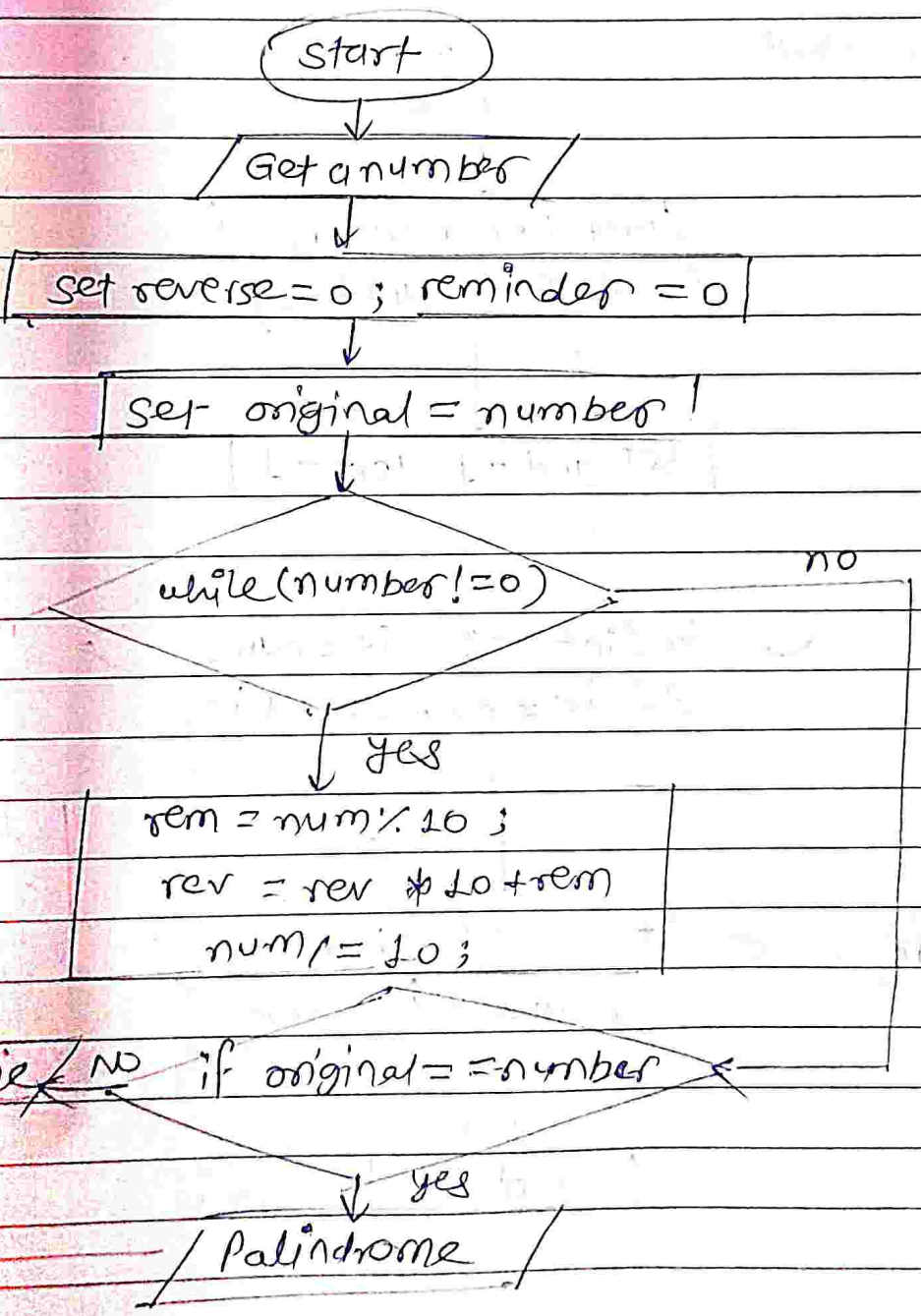
15) LCM of two numbers

1) Start
2) Get two number num1, num2
3) set gcd = 1
4) for (int i = 1 ; i<=num1 && i<=num2 ; ++i)
   if (num1 % i == 0 && num2 % i == 0)
   set gcd = i
5) lcm = (num1 * num2) / gcd
6) Print LCM
7) stop



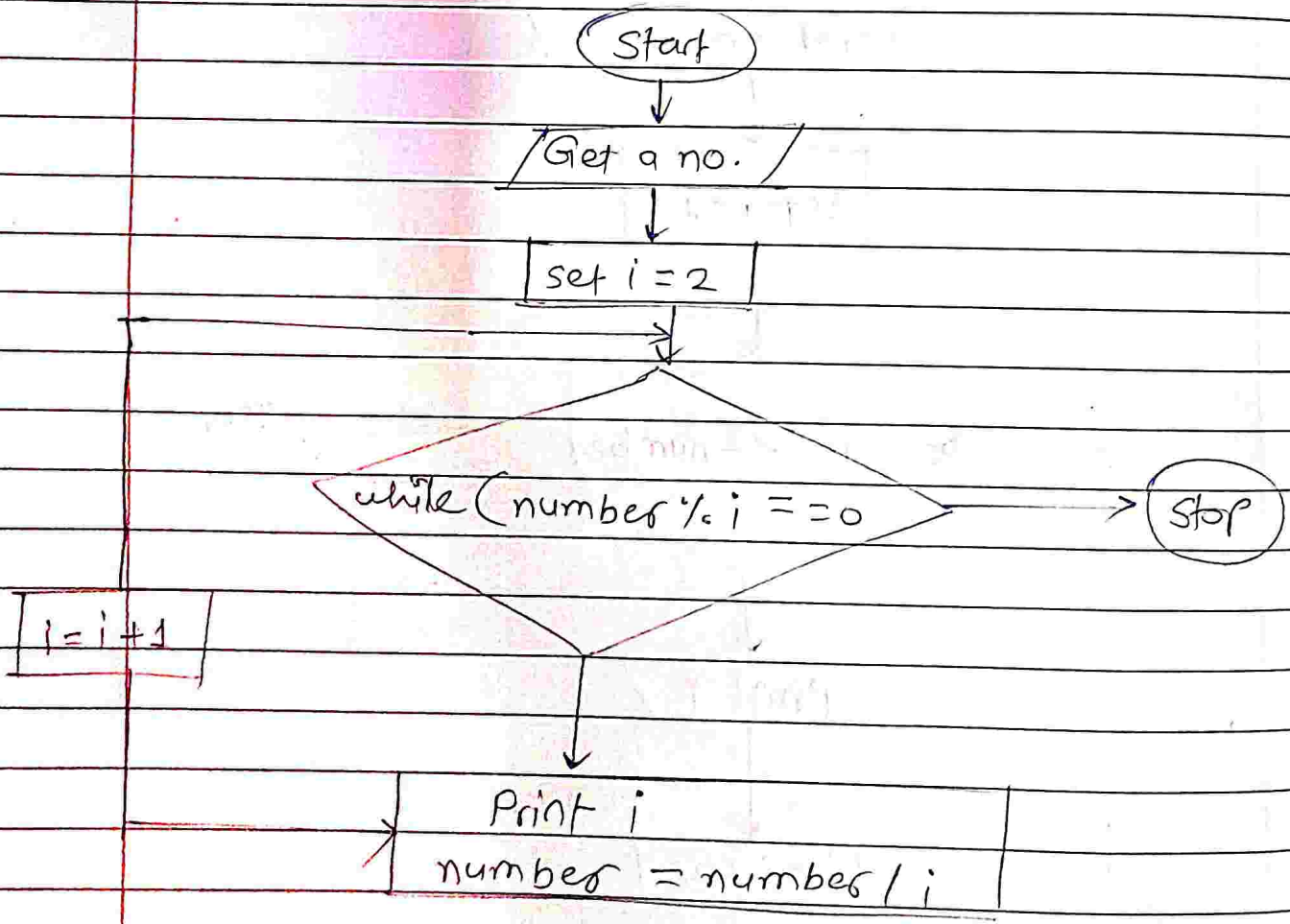
17. check palindrome number or not

1) start-
2) Get a number
3) set reverse = 0 and reminder = 0
4) set original = number
5) check number != 0 if true go to 5 else go to 7
6) rem = num % 10 ; rev = rev * 10 + rem ; num /= 10;
7) check if original == number if true print palindrome else print not palindrome
8) stop



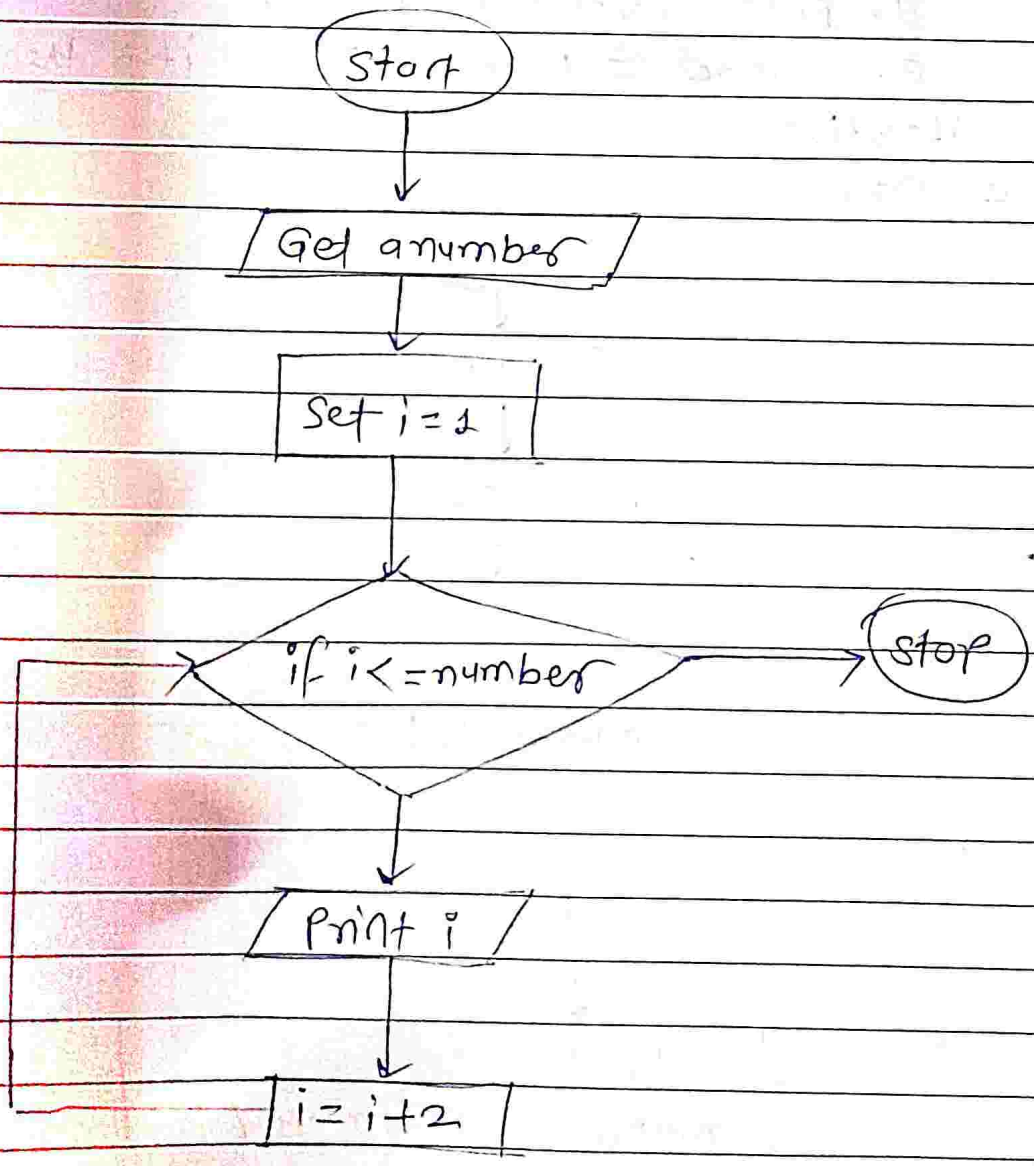
18) Prime factors of given number

1) start-
2) Enter the number
3) Take i=2
4) check the input number greater than enter in loop
   a. while (No. is > 1)
   b. check the condn if (No % i == 0)
   c. if it is true enter in bracket
   d. print(i) value on terminal
   e. Number = Number / 1 else i++ then loop will iteration
5. Stop



Q.1g) Even series

1. Start
2. Get a number
3. Set i = 2
4. If i < number, print i & i=i+2. else go to 6
5. Repeat step 4 until i<=number
6. Stop



Q.20. Odd series.

1) Start
2) Get a number
3) set i = 1
4) If i <= number, print i & i = i+2 else go to step 6
5) Repeat step 4 until <= number
6) stop