Ex. No.: 01

Date: 25/09/2024

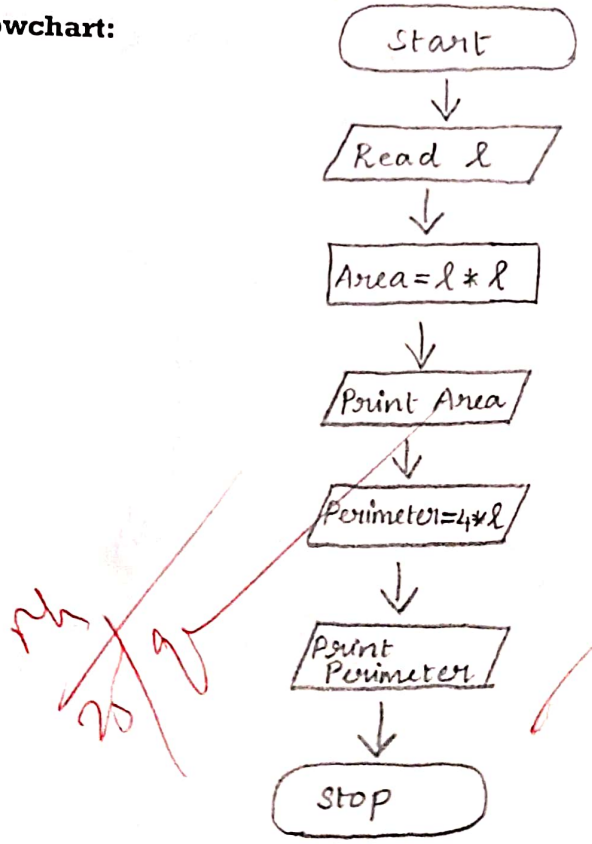
Calculate Area and Perimeter

Write an Algorithm and draw a Flowchart to Calculate the area and perimeter of a square.

Algorithm:

STEP 1: Start
STEP 2: Read l
STEP 3: Area = $l * l$
STEP 4: Print Area
STEP 5: Perimeter = $4 * l$
STEP 6: Print Perimeter
STEP 7: Stop

Flowchart:



KARPAGA SUNDARI V

241401037

GE23131 - Programming Using C

Ex. No.: 02

Date: 25/09/2024

Days to Year Conversion

Write an Algorithm and draw a Flowchart to convert the given days into years & months.

Algorithm:

STEP 1: Start

STEP 2: Input no of days

STEP 3: Calculate the no of years
year = days // 365

STEP 4: Calculate remaining days after calculating years
remaining days = days %. 365

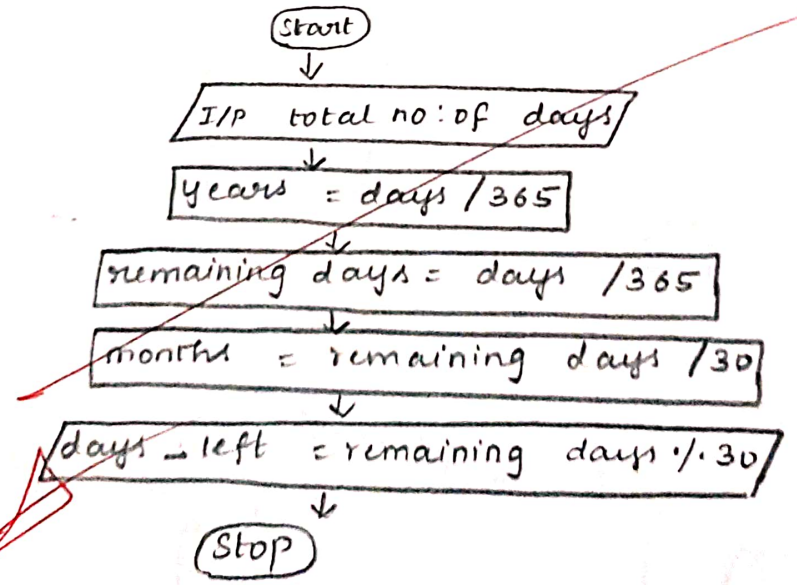
STEP 5: Calculate no of month
months = remaining days / 30

STEP 6: Calculate remaining days after calculating months
days - left = Remaining day %. 30

STEP 7: Output the years, months and days_left

STEP 8: End

Flowchart:



241401037 KARPAGA SUNDARI V

GE23131 - Programming Using C

Ex. No.: 03 **Date:** 25/10/2024

Prime Number

Write an Algorithm and draw a Flowchart to check whether the given number is Prime or not.

Algorithm:

STEP 1: Take num as input

STEP 2: Initialize a variable temp is 0

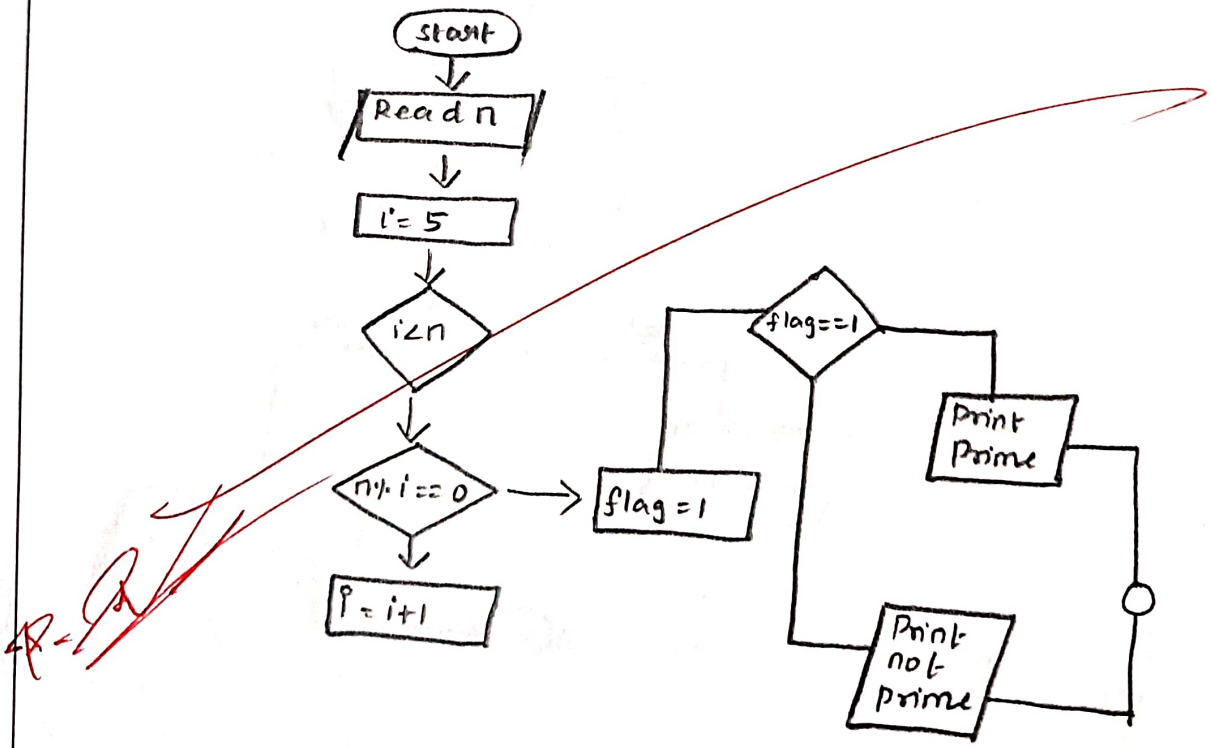
STEP 3: Iterate a 'for' loop from 2 to num/2

STEP 4: If num is divisible by loop, then increment temp.

STEP 5: If temp is equal to 0, return "Num is prime"
else
return "Num is not prime"

STEP 6: End

Flowchart:



Ex. No.: 04 **Date:** 25/09/2024

Leap Year

Write an Algorithm and draw a Flowchart to check whether the given year is Leap year or not.

Algorithm:

STEP1: Start

STEP2: Declare year

STEP3: Read year

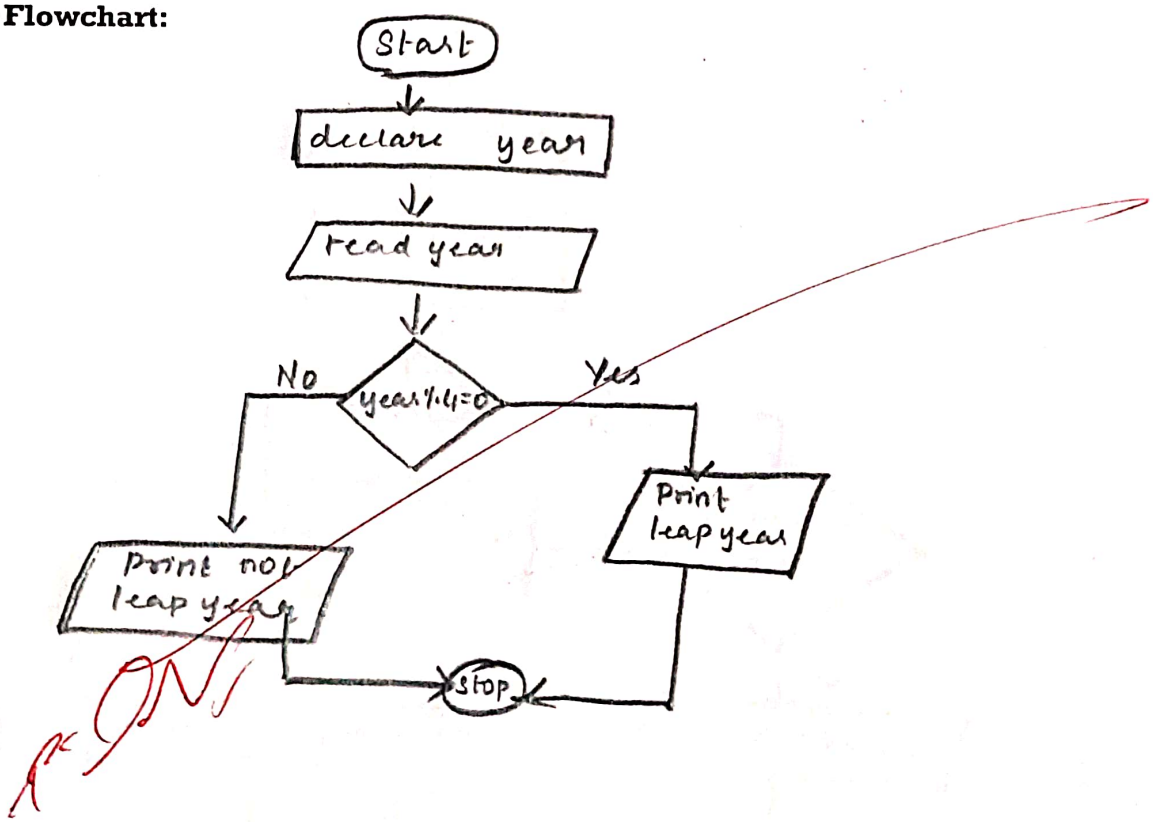
STEP4: Check if year % 4 = 0

STEP5: Print "leap year"

STEP6: else
Print "Not leap year"

Stop

Flowchart:



241401037 KARPAGA SUNDARI

GE23131 - Programming Using C

Ex. No.: 05 **Date:** 25/09/2024

Palindrome Number

Write an Algorithm and draw a Flowchart to check whether the given number is palindrome number or not.

Algorithm:

STEP1: Start

STEP2: Read the number n

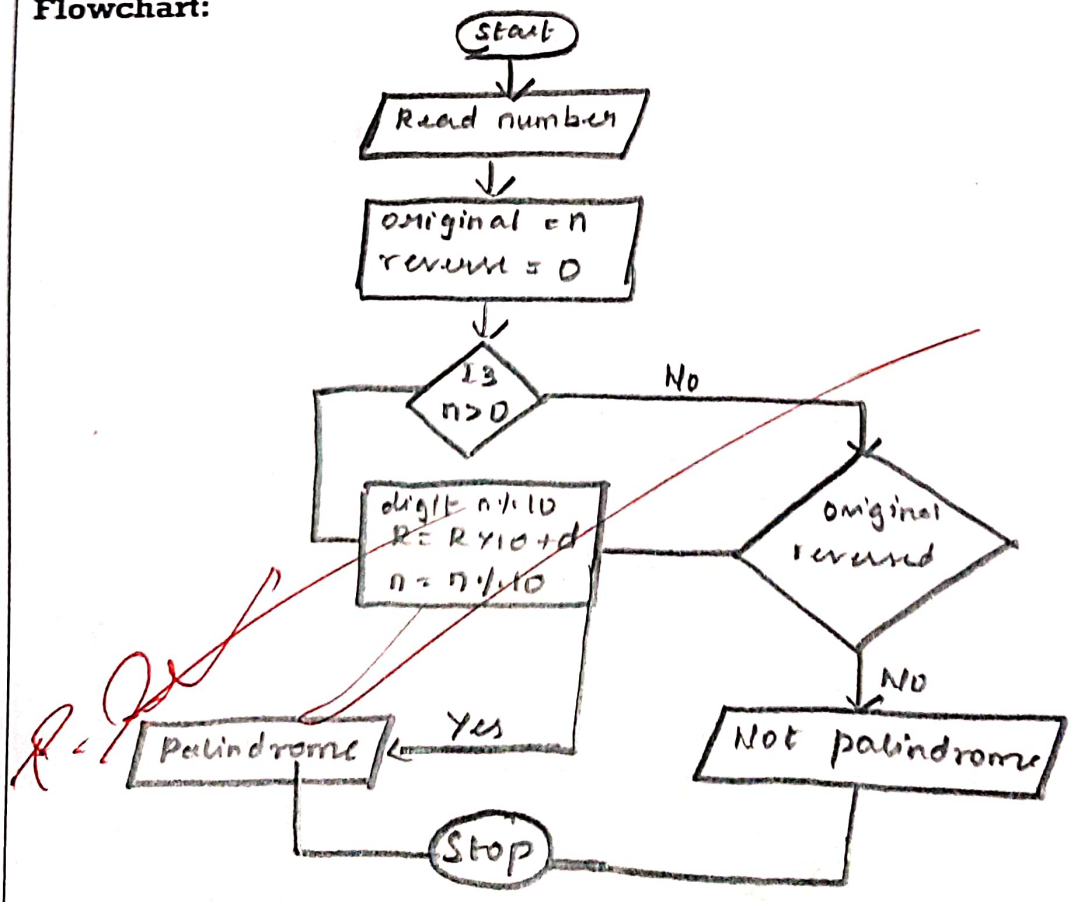
STEP3: Initialize : set original = n & reversed = 0

STEP4: while n > 0
Set digit = n mod 10
update reversed = reversed x 10 + digit
update n = n ÷ 10

STEP 5: if original = reversed
Print "Palindrome"

STEP 6: End

Flowchart:



GE23131 - Programming Using C

Ex. No.: 06 **Date:** 25/09/2024

Sum of Digits

Write an Algorithm and draw a Flowchart to calculate the sum of digits in the given number.

Algorithm:

STEP1 : Start

STEP2 : Input the number (n)

STEP3 : Initialise sum = 0

STEP4 : Repeat following steps while n is greater than 0. n>0

- Extract least digit of n digit = n%10
- Add digit to sum sum = sum + digit
- Remove last digit n: n = n/10

STEP5 : O/P the sum

STEP6 : End

Flowchart: