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~~PSO~~
Output:-

Name of Student :

Vikram

Address of Student :

Nirar.

Roll No. of Student :

172.46

Grade of Student :

A

Contact No.:

8208230693.

~~Student Name : Vikram~~

~~Student Address : Nirar~~

~~Student Roll No. : 1729~~

~~Student Percentage : 72.46~~

~~Student Grade : A~~

~~Student Contact : 8208230693.~~

Aim:- Demonstrate the use of various datatypes.

Source code :-

```
#include <stdio.h>
#include <conio.h>

Void main()
{
    char name [50];
    char add [50];
    int rollno;
    float percent;
    char grade;
    long int contact;

    clrscr();
    printf ("Name of Student \n");
    scanf ("%s", &name);
    printf ("Address of Student \n");
    scanf ("%s", &add);
    printf ("Roll No. of Student \n");
    scanf ("%d", &rollno);
    printf ("Percentage of student \n");
    scanf ("%f", &percent);
    printf ("Grade of Student \n");
    scanf ("%c", &grade);
    printf ("Contact No. \n");
    scanf ("%ld", &contact);
```

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```
printf ("In Student Name: %s", name);
printf ("In Student Address: %s", add);
printf ("In Student Roll No.: %d", rollno);
printf ("In Student Percentage: %f", percent);
printf ("In Student Grade : %c", grade);
printf ("In Student contact : %ld", contact);
getch();
```

*Sri
29/11/19*

aso

Output:

Enter 1st No.: 8

Enter 2nd No.: 2

Addition is 10

Subtraction is 6

Multiplication is 16

Division is 4

PRACTICAL - II

Aim:- Write a C program to demonstrate the use of various types of operators.

Arithmetic Operators :-

```
#include < stdio.h >
#include < conio.h >
Void main ()
{
    int num1, num2, add, sub, Mul, div;
    clrscr();
    printf (" Enter 1st No.");
    scanf ("%d", &num1);
    printf (" Enter 2nd No.");
    scanf ("%d", &num2);
    add = num1 + num2;
    printf (" Addition is : %d", add);
    Sub = num1 - num2;
    printf (" In Subtraction is %d", sub);
    mul = num1 * num2;
    printf (" In Multiplication is %d", mul);
    div = num1 / num2;
    printf (" In Division is %d", div);
    getch ();
}
```

Logical Operators:-

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int x,y,z, value1, value2, value3, value4, value5;
    clrscr();
    printf ("Enter 1st Value : ");
    scanf ("%d", &x);
    printf ("Enter 2nd Value : ");
    scanf ("%d", &y);
    printf ("Enter 3rd Value : ");
    scanf ("%d", &z);
    value1 = (x < y) && (z > y);
    printf ("Value 1 is %d \n", value1);
    value2 = (x == y) && (z < y);
    printf ("Value 2 is %d \n", value2);
    value3 = !(x < y) || (z == y);
    printf ("Value 3 is %d \n", value3);
    value4 = !(x == y);
    printf ("Value 4 is %d \n", value4);
    value5 = (x == y);
    printf ("Value 5 is %d \n", value5);
    getch();
}

```

Output

Enter 1st Value : 9

Enter 2nd Value : 8

Enter 3rd Value : 2

Value 1 is : 0

Value 2 is : 1

Value 3 is : 1

Value 4 is : 0

Value 5 is : 1

*Sunil
17/01/2020*

850

Output

Enter a Number : 44

Enter b Number : -44

Greater No. is - 44



PRACTICAL - II (B)

Aim:- Write A C++ Program to demonstrate the use of Ternary operator

* Ternary Operator.

```
# include < stdio.h >
# include < conio.h >
void main()
{
    int a, b, x;
    clrscr();
    printf (" Enter a Number : ");
    scanf ("%d", &a);
    b = a + 2;
    printf (" Enter b Number : ");
    printf (" Enter b Number : ");
    scanf ("%d", &b);
    x = (a > b) ? a : b;
    printf (" Greater No. is %d ", x);
    getch();
}
```

y

AIM:- Demonstrate the Use of Decision Statement.

Q1] Write a C Program to find out odd & even no.

* Algorithm :-

Step I :- Start

Step II :- Take Input

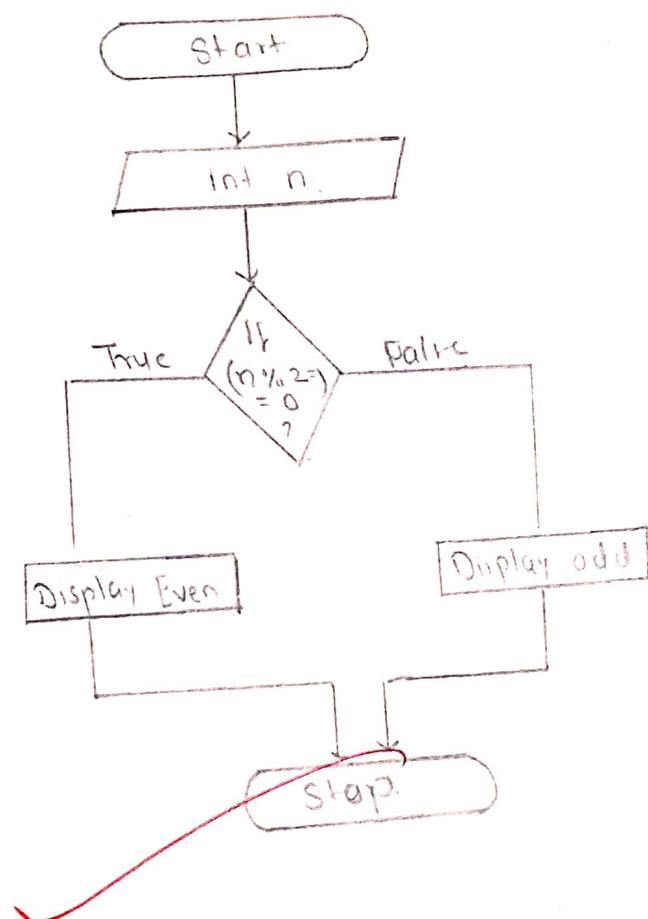
Step III :- Check if $\text{num} \% 2 == 0$ then print even no.
else odd no.

Step IV :- Stop.

* Code.

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int n;
    clrscr();
    printf("Enter a Number :");
    scanf("%d", &n);
    if (n % 2 == 0) {
        printf("%d is even", n);
    } else {
        printf("%d is odd", n);
    }
    getch();
}
```

* Flowchart

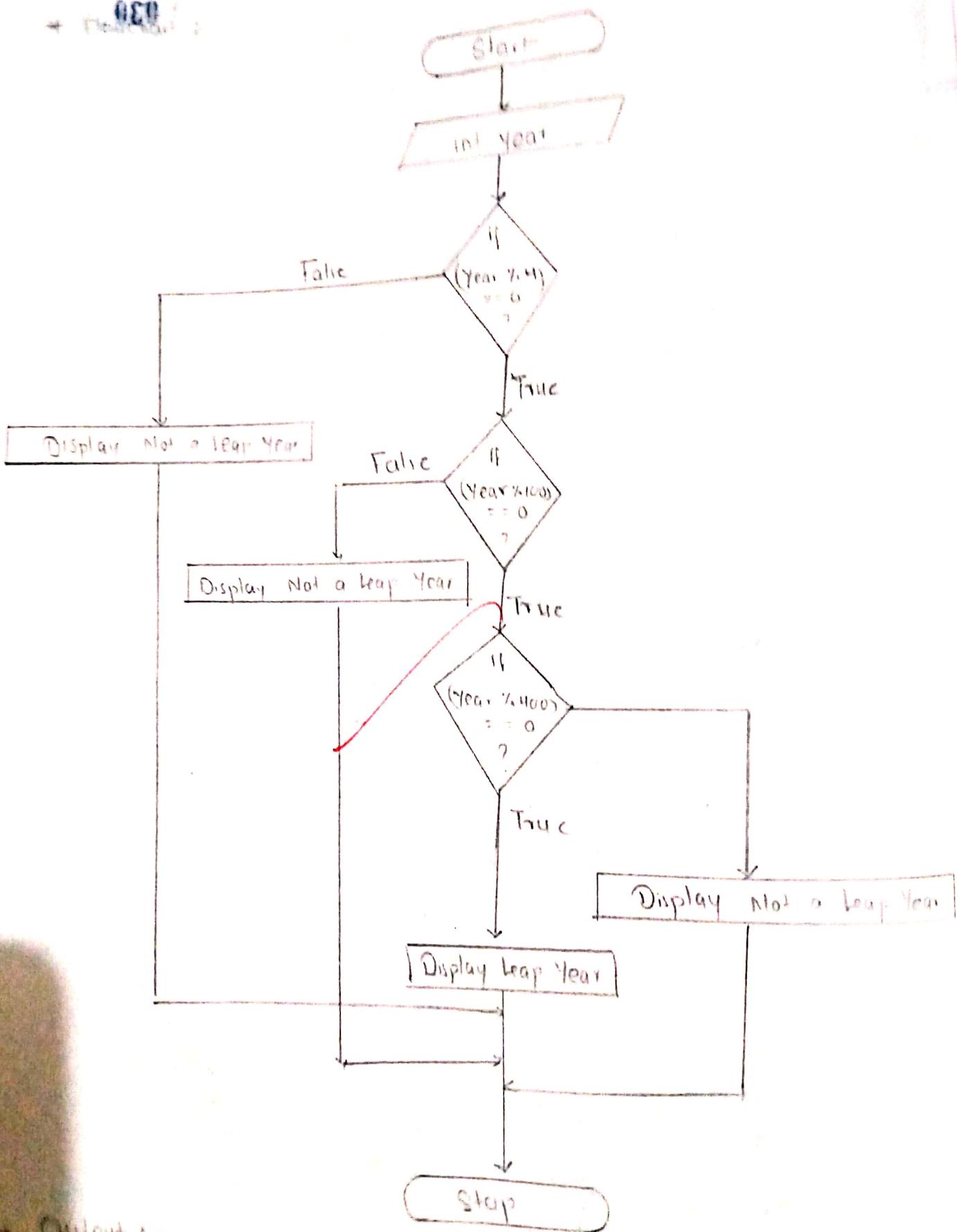


* Output :-

- Enter a Number : 25

25 is odd,

Ques :-



Enter a Year : 2016

Leap Year

Q) Write a C program to find the entered year is a leap year or not.

* Algorithm :-

Step I :- Start

Step II :- Read value from the user

Step III :- if entered value $\% 4 == 0$ and if entered value $\% 100 == 0$
and if entered value $\% 400 == 0$ then Print
Leap Year else Print Not a Leap Year.

Step IV :- Stop.

* Code

```
#include <stdio.h>
#include <conio.h>

void main()
{
    int year;
    clrscr();
    printf("Enter a Year");
    scanf("%d", &year);
    if (year % 4 == 0) {
        if (year % 100 == 0) {
            if (year % 400 == 0)
                printf("Leap Year");
            else
                printf("Not a Leap Year");
        } else
            printf("Not a Leap Year");
    } else
        printf("Not a Leap Year");
}
```

QEO

```
    printf ("Not a leap year");  
}  
getch();  
}
```

- c] Write a program to find whether the character is vowel or consonant.

* Algorithm:

Step I :- Start

Step II :- Read input from the user. (char)

Step III :- Check if value == 'a' || value == 'e' || value == 'o' || value == 'u' || value == 'A' || value == 'I' || value == 'O' || value == 'U' then
Print (Vowel) else print Consonant

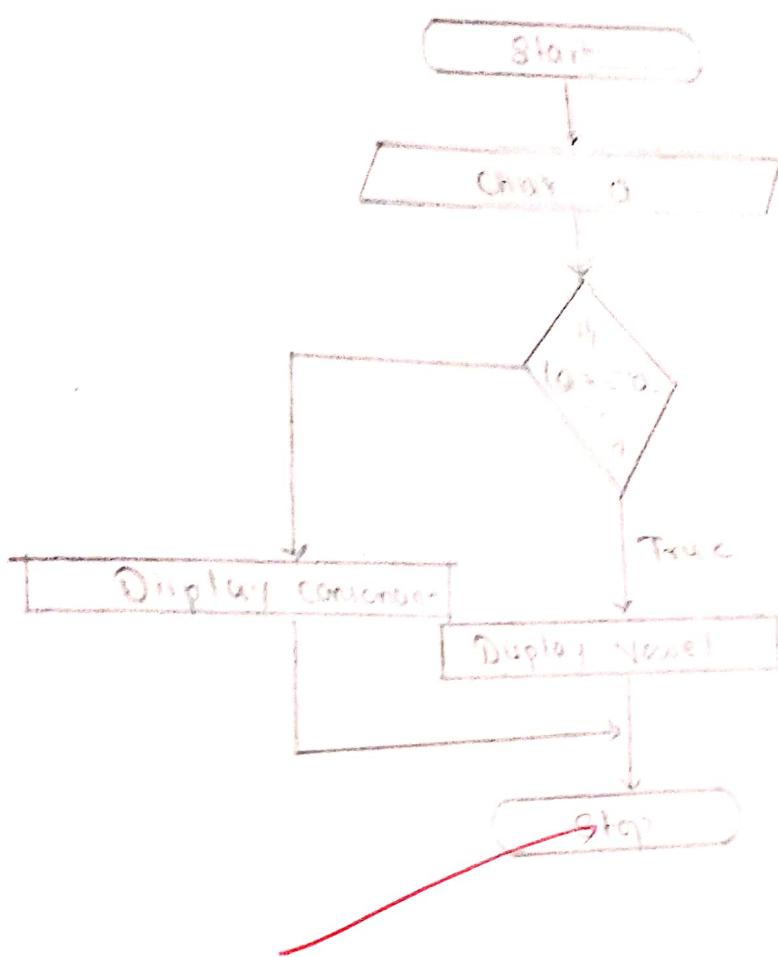
Step IV :- Stop.

* Code:-

```
#include <stdio.h>  
#include <conio.h>  
void main()  
{  
    char a;  
    clrscr();  
    printf ("Enter an alphabet");  
    scanf ("%c", &a);  
    if (a == 'a') || (a == 'e') || (a == 'o') || (a == 'u') || (a == 'A') || (a == 'I') || (a == 'O') || (a == 'U')  
        {  
            printf ("Vowel");  
        }  
    else  
        {  
            printf ("Consonant");  
        }  
}
```

* Flowchart +

032



* Questions +

Ques 00 3 minutes 0

0 is 60 hours

```
    printf("In! c is an vowel alphabet", a);  
} else {  
    printf("In!c is a consonant", a);  
}  
getch();  
}
```

Aim:- Demonstrate the use of control flow statement

- ii] Write a C Program to print even number from 1 to 50 using while loop.

* Algorithm:-

Step I :- Start

Step II :- Initialize two variable which is an integer.

Step III :- Use While loop for print the even no.

Step IV :- Increment the counter by 2

Step V :- Display the output

Step VI :- Stop.

* Code.

```
#include < stdio.h >
```

```
#include < conio.h >
```

```
void main()
```

```
{
```

```
int i, n = 50;
```

```
clrscr();
```

```
printf (" Even No. upto 50: ");
```

```
i = 2
```

```
while (i <= n)
```

```
{
```

```
printf ("%d\n", i);
```

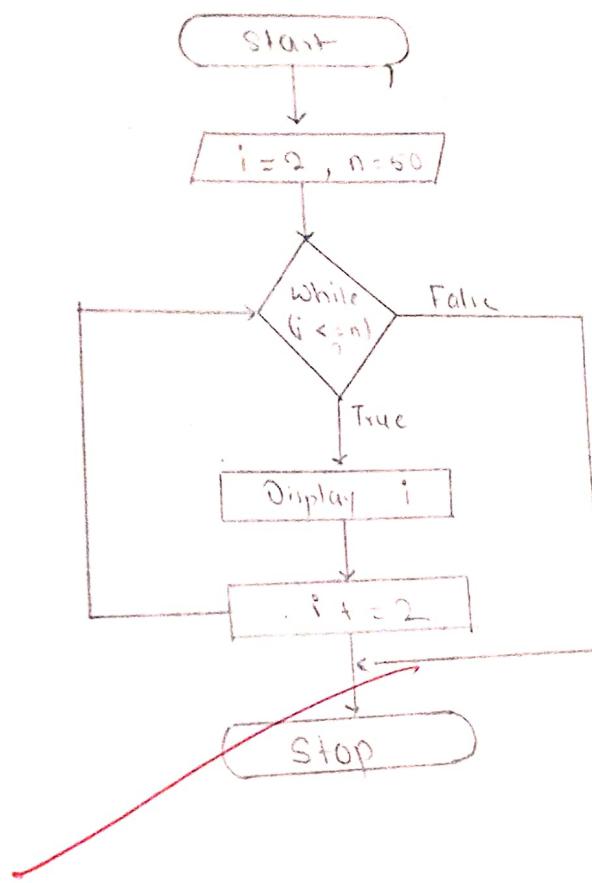
```
i += 2;
```

```
}
```

```
getch();
```

* Flowchart

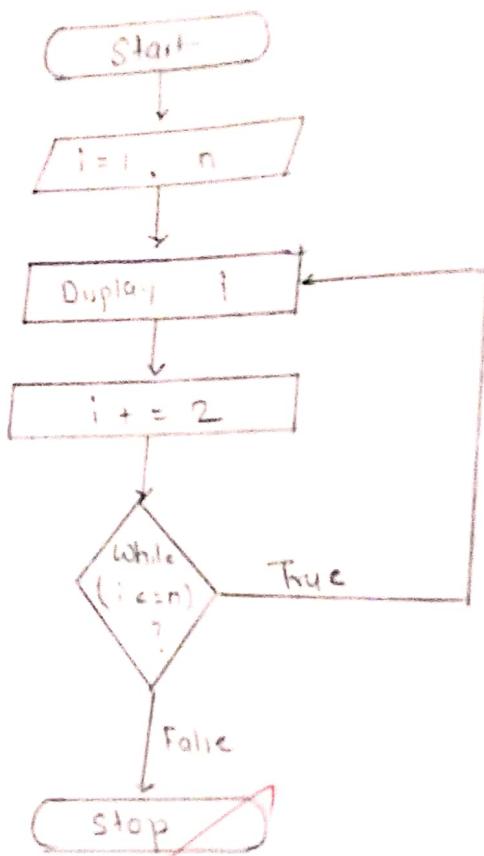
034



* Output :-

2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48

* ~~Flowchart~~



* Output

Enter a Number : 30

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

Q) Write a C program to print odd no. from 1 to ~~50~~ n using do while loop.

* Algorithm:-

Step 1 : Start

Step 2 : Read an integer value from the user

Step 3 : Initialize a counter variable

Step 4 : Use do while loop conditional statement to print odd no upto n.

Step 5 : Increment the counter by 2.

Step 6 : Display the output

Step 7 : Stop

* Code:-

#include < stdio.h >

#include < conio.h >

void main()

{

int i, n;

clrscr();

printf("Enter a Number : ");

scanf("%d", &n);

i = 1;

do {

printf("\n%d", i);

i += 2;

} while (i <= n);

getch();

Q] Write a C program to print sum upto n using for loop.

* Algorithm:-

Step I :- Start

Step II :- Initialize i = 1 ; sum = 0 ; n ; (integer)

Step III :- Use for loop to check for the given range i.e n.

Step IV :- Add current value of i to sum.

Step V :- Display the output

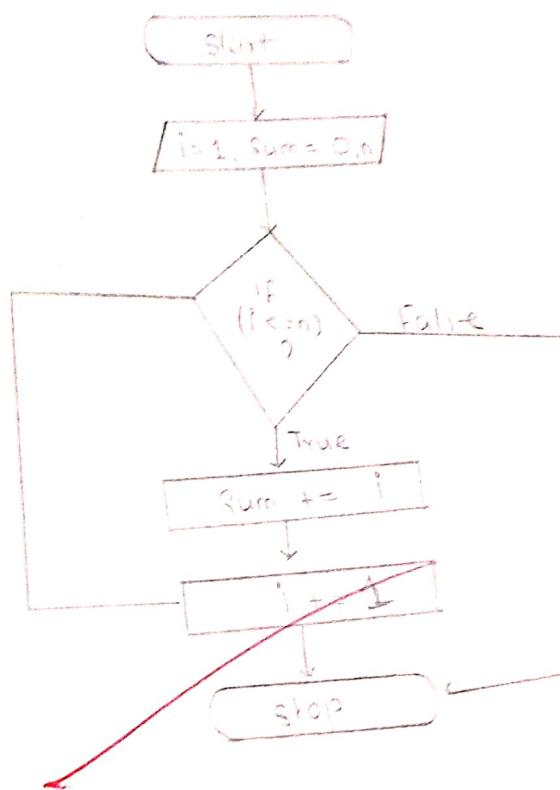
Step VI :- Stop.

* Source Code:-

```
#include < stdio.h>
#include < conio.h>
Void main()
{
    int i=1, sum=0, n;
    clrscr();
    printf (" Enter a no.");
    scanf ("%d", &n);
    for ( i=1 ; i<=n; i++ )
        sum += i;
    printf ("\nsum of N numbers %d", sum);
    getch();
}
```

* Flowchart :-

036



* Output :-

Enter a no. 5

Sum of N numbers 15

Sai
09/02/2020