**Practical No.04**

**Aim: Programs based on various loops (for, while, do-while)**

**1. C Program to check given number is perfect number or not.**

**Program:**

#include<stdio.h>

#include<conio.h>

void main()

{

int n,i=1,sum=0;

clrscr();

printf("Enter a number: ");

scanf("%d",&n);

while(i<n)

{

if(n%i==0)

sum=sum+i;

i++;

}

if(sum==n)

printf("%d is a perfect number",i);

else

printf("%d is not a perfect number",i);

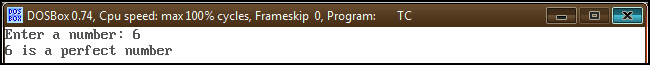
getch();

}

**Output:**

Enter a number: 6

6 is a perfect number

****

**2. C Program to Check the given number is Armstrong number or not**

**Program:**

#include<stdio.h>

#include<conio.h>

void main()

{

int num,r,sum=0,temp;

clrscr();

printf("Enter a number: ");

scanf("%d",&num);

temp=num;

while(num!=0)

{

r=num%10;

num=num/10;

sum=sum+(r\*r\*r);

}

if(sum==temp)

printf("%d is an Armstrong number",temp);

else

printf("%d is not an Armstrong number",temp);

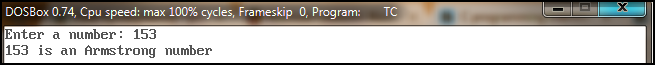
getch();

}

**Output:**

Enter a number: 153

153 is an Armstrong number

****

**3. C Program to Check the given number is Neon number or not**

**Program:**

#include<stdio.h>

#include<conio.h>

void main()

{

int n,sq,i,sum=0;

clrscr();

printf("Enter the number:\t");

scanf("%d",&n);

sq = n \* n;

for(i = sq; i > 0; i = i/10)

sum = sum + i % 10;

if(sum == n)

printf("%d is a neon number.",n);

else

printf("%d is not a neon number.",n);

getch();

}

**Output:**

Enter the number: 9

9 is a neon number.

