C programmimg

1)

```c
/****************************************************
    Program to find character is vowel Or Consonant
****************************************************/
#include<stdio.h>

int main()
{
    char c;
    printf("Enter Character: ");
    scanf("%c",&c);
    if(c=='a'||c=='e'||c=='i'||c=='o'||c=='u')
    {
        printf("Vowel\n");
    }
    else
    {
        printf("Consonant\n");
    }
    return 0;
}
```

2)

```c
/**********************************************
    Program to find character Aphabet or Not
**********************************************/
#include<stdio.h>
#include<ctype.h>

int main()
{
    char c;
    printf("enter character:");
    scanf("%c",&c);
    if(isalpha(c))
    {
        printf("Alphabet\n");
    }
    else
    {
        printf("Not Alphabet\n");
    }
    return 0;
}
```

3)

```c
/****************************************************
     Program to find ASCII value of character
****************************************************
#include<stdio.h>
int main()
{
    char c;
    printf("Enter character: ");
    scanf("%c",&c);
    printf("Ascii value of %c is: %d \n",c,c);
    return 0;
}
```

4)

```c
/*****************************
Program to find number of digits in number
*****************************/
#include<stdio.h>

int main()
{
    int val;
    int count=0;
    printf("enter number: ");
    scanf("%d",&val);
    while(val!=0)
    {
        val = val/10;
        count++;
    }
    printf("No of Digits: %d\n",count);
    return 0;
}
```

5)

```c
/********************************************
     Program to find out factorial of Number
 ********************************************/
#include<stdio.h>

int main()
{
    int no;
    long fact=1;
    int i;
    printf("enter number: ");
    scanf("%d",&no);
    for(i=1;i<=no;i++)
    {
        fact = fact*i;
    }
    printf("factorial is %ld\n",fact);
    return 0;
}
```

6)

```c
/************************************************
     Program to find out Fibonnaci series up to n
 ************************************************/
#include<stdio.h>

int main()
{
    int no;
    int i;
    int a=-1,b=1,c;
    printf("enter number: ");
    scanf("%d",&no);
    printf("Fibonnace Series: ");
    for(i=0;i<=no;i++)
    {
        c = a+b;
        printf("%d, ",c);
        a = b;
        b = c;
    }
    return 0;
}
```

7)

```c
/*************************************************
      Program to find number is +ve or -ve
 ************************************************/
#include<stdio.h>

int main()
{
    int no;
    printf("enter number: ");
    scanf("%d",&no);
    no>0?printf("no is positive\n"):printf("no is negative\n");
    return 0;
}
```

8)

```c
/*************************************************
      Program to find number is even or odd
 ************************************************/
#include<stdio.h>

int main()
{
    int no;
    printf("enter number: ");
    scanf("%d",&no);
    no%2==0?printf("no is even\n"):printf("no is odd\n");
    return 0;
}
```

9)

```c
/*************************************************
      Program to find area of circle
 ************************************************/
#include<stdio.h>

int main()
{
    float area,r;
    printf("enter radius");
    scanf("%f",&r);
    printf("area of circle is %0.2f",(3.14*r*r));
    return 0;
}
```

10)

```
/******************************************************
      Program to find area of rectangle
*******************************************************
#include<stdio.h>

int main()
{
    float area,l,b;
    printf("enter length & breadth");
    scanf("%f %f",&l,&b);
    printf("area of rectangle is %0.2f \n",(l*b));
    return 0;
}
```

11)

```
/^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
      Program to find area of triangle
*****************************************************
#include<stdio.h>

int main()
{
    float area,h,b;
    printf("enter height & base");
    scanf("%f %f",&h,&b);
    printf("area of triangle is %0.2f \n",(l*b));
    return 0;
}
```

12)

```
/*****************************************************
      program to find sum of digits of number
****************************************************
#include<stdio.h>
int main()
{
    int no,sum=0,digit;
    printf("enter number: ");
    scanf("%d",&no);
    while(no!=0)
    {
        digit = no%10;
        sum = sum+digit;
        no = no/10;
    }
    printf("sum of digits: %d\n",sum);
    return 0;
}
```

13)

```c
/*********************************************************
    Program to find sum of N natural numbers
*********************************************************
#include<stdio.h>
int main()
{
    int n;
    int i;
    int sum;
    printf("enter value of n: ");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        sum +=i;
    }
    printf("sum of %d natural number is %d \n",n,sum);
    return 0;
}
```

14)

```c
/*********************************************************
    Program to find sum of numbers within range
*********************************************************/
#include<stdio.h>
int main()
{
    int u,l,i;
    int sum;
    printf("enter value of lower and upper bound of range: ");
    scanf("%d%d",&l,&u);
    for(i=l;i<=u;i++)
    {
        sum +=i;
    }
    printf("sum of range numbers is %d \n",sum);
    return 0;
}
```

15)

```c
/*****************************************
     program to reverse digits of number
******************************************
#include<stdio.h>
#include<math.h>
int main()
{
    int no,rev;
    printf("enter number: ");
    scanf("%d",&no);
    while(no!=0)
    {
        rev = rev*10;
        rev = rev+no%10;
        no = no/10;
    }
    printf("rev of number: %d\n",rev);
    return 0;
}
```

16)

```c
/**
 * C program to find LCM of any two numbers
 */

#include <stdio.h>

int main()
{
    int i, num1, num2, max, lcm=1;
    printf("Enter any two numbers to find LCM: ");
    scanf("%d%d", &num1, &num2);

    max = (num1 > num2) ? num1 : num2;
    i = max;

    while(1)
    {
        if(i%num1==0 && i%num2==0)
        {
            lcm = i;
            break;
        }
        i += max;
    }

    printf("LCM of %d and %d = %d", num1, num2, lcm);

    return 0;
}
```

17)

```c
/**
 * C program to check whether a number is Strong Number or not
 */

#include <stdio.h>

int main()
{
    int i, originalNum, num, lastDigit, sum;
    long fact;

    printf("Enter any number to check Strong number: ");
    scanf("%d", &num);
    originalNum = num;

    sum = 0;
    while(num > 0)
    {
        lastDigit = num % 10;
        fact = 1;
        for(i=1; i<=lastDigit; i++)
        {
            fact = fact * i;
        }
        sum = sum + fact;

        num = num / 10;
    }
    if(sum == originalNum)
    {
        printf("%d is STRONG NUMBER", originalNum);
    }
    else
    {
        printf("%d is NOT STRONG NUMBER", originalNum);
    }

    return 0;
}
```

18)

```c
/* C Program to find if Number is Perfect Number */

# include <stdio.h>

int main()
{
  int i = 1, Number, Sum = 0 ;

  printf("\n Please Enter any number \n") ;
  scanf("%d", &Number) ;

  while( i < Number )
    {
      if(Number % i == 0)
         Sum = Sum + i ;
      i++;
    }

  if (Sum == Number)
    printf("\n %d is a Perfect Number", Number) ;
  else
    printf("\n%d is not the Perfect Number", Number) ;

  return 0 ;
}
```

19)

```c
/*C Program to find Power of Number*/

#include <stdio.h>
int main()
{
    int base, exponent;

    long long result = 1;

    printf("Enter a base number: ");
    scanf("%d", &base);

    printf("Enter an exponent: ");
    scanf("%d", &exponent);

    while (exponent != 0)
    {
        result *= base;
        --exponent;
    }

    printf("Answer = %lld", result);

    return 0;
}
```

20)

```c
/*C Program to find Factors of Number*/

#include <stdio.h>
int main()
{
    int number, i;

    printf("Enter a positive integer: ");
    scanf("%d",&number);

    printf("Factors of %d are: ", number);
    for(i=1; i <= number; ++i)
    {
        if (number%i == 0)
        {
            printf("%d ",i);
        }
    }

    return 0;
}
```

21)

```c
/*Write a C program to add two fractions.*/

#include <stdio.h>
int main ()
{
        int x1, y1, x2, y2, x3, y3, div, i;

        printf("Enter the value for x1 and y1(x1/y1):");
        scanf("%d%d", &x1, &y1);

        printf("Enter the value for x2 and y2(x2/y2):");
        scanf("%d%d", &x2, &y2);

            x3 = (x1 * y2) + (x2 * y1);

        y3 = (y1 * y2);

        if (x3 > y3) {
              div = y3;
        } else {
              div = x3;
        }

        for (i = div; i > 0; i--) {
              if (x3 % i == 0 && y3 % i == 0) {
                       x3 = x3 / i;
                       y3 = y3 / i;
              }
        }
        printf("Sum of given two fraction is %d/%d\n", x3, y3);
        return 0;
}
```

22)

```c
 *Program to find GCD of Two numbers*/
#include <stdio.h>
int main()
{
    int n1, n2, i, gcd;

    printf("Enter two integers: ");
    scanf("%d %d", &n1, &n2);

    for(i=1; i <= n1 && i <= n2; ++i)
    {
        // Checks if i is factor of both integers
        if(n1%i==0 && n2%i==0)
            gcd = i;
    }

    printf("G.C.D of %d and %d is %d", n1, n2, gcd);

    return 0;
}
```

23)

```c
/*C program to find if Number is Armstrong*/
#include <stdio.h>
int main()
{
    int number, originalNumber, remainder, result = 0;

    printf("Enter a three digit integer: ");
    scanf("%d", &number);

    originalNumber = number;

    while (originalNumber != 0)
    {
        remainder = originalNumber%10;
        result += remainder*remainder*remainder;
        originalNumber /= 10;
    }

    if(result == number)
        printf("%d is an Armstrong number.",number);
    else
        printf("%d is not an Armstrong number.",number);

    return 0;
}
```

24)

```c
/* C Program - Find Largest of Two Numbers */
#include<stdio.h>
void main()
{
    int a, b, big;
    printf("Enter two number : ");
    scanf("%d%d",&a,&b);
    if(a>b)
    {
        big=a;
    }
    else
    {
        big=b;
    }
    printf("Biggest of the two number is %d",big);
}
```

25)

```c
/* C program to find the biggest of three numbers
 */
#include <stdio.h>

void main()
{
    int num1, num2, num3;

    printf("Enter the values of num1, num2 and num3\n");
    scanf("%d %d %d", &num1, &num2, &num3);
    printf("num1 = %d\tnum2 = %d\tnum3 = %d\n", num1, num2, num3);
    if (num1 > num2)
    {
        if (num1 > num3)
        {
            printf("num1 is the greatest among three \n");
        }
        else
        {
            printf("num3 is the greatest among three \n");
        }
    }
    else if (num2 > num3)
        printf("num2 is the greatest among three \n");
    else
        printf("num3 is the greatest among three \n");
}
```

26)

```c
/*C program to check leap year*/

#include <stdio.h>

int main()
{
    int year;

    printf("Enter a year to check if it is a leap year\n");
    scanf("%d", &year);

    if (year%400 == 0) // Exactly divisible by 400 e.g. 1600, 2000
        printf("%d is a leap year.\n", year);
    else if (year%100 == 0) // Exactly divisible by 100 and not by 400 e.g. 1900, 2100
        printf("%d isn't a leap year.\n", year);
    else if (year%4 == 0) // Exactly divisible by 4 and neither by 100 nor 400 e.g. 2016, 2020
        printf("%d is a leap year.\n", year);
    else // Not divisible by 4 or 100 or 400 e.g. 2017, 2018, 2019
        printf("%d isn't a leap year.\n", year);

    return 0;
}
```

27)

```c
 * C program to check whether a given number is prime or not
 */
#include <stdio.h>
#include <stdlib.h>

void main()
{
    int num, j, flag;

    printf("Enter a number \n");
    scanf("%d", &num);

    if (num <= 1)
    {
        printf("%d is not a prime numbers \n", num);
        exit(1);
    }
    flag = 0;
    for (j = 2; j <= num / 2; j++)
    {
        if ((num % j) == 0)
        {
            flag = 1;
            break;
        }
    }
    if (flag == 0)
        printf("%d is a prime number \n", num);
    else
        printf("%d is not a prime number \n", num);
}
```

28)

```c
/*
program to identify if the number is Palindrome or not
*/
#include <stdio.h>

int main()
{
    int n, reverse = 0, t;

    printf("Enter a number to check if it is a palindrome or not\n");
    scanf("%d", &n);

    t = n;

    while (t != 0)
    {
        reverse = reverse * 10;
        reverse = reverse + t%10;
        t = t/10;
    }

    if (n == reverse)
        printf("%d is a palindrome number.\n", n);
    else
        printf("%d isn't a palindrome number.\n", n);

    return 0;
}
```