1.Even or odd number

```c
#include<stdio.h>

int main()

{

    int a;

    printf("Enter the value of a :\n");

    scanf("%d",&a);

    if(a%2==0)

    {

        printf("%d is an even number.\n",a);

    }

    else

    {

        printf("%d is an odd number.\n",a);

    }

    return 0;

}
```

2.Largest number among three numbers:

```c
#include<stdio.h>

int main()

{

    int num1,num2,num3;

    printf("Enter the numbers : \n");

    scanf("%d%d%d",&num1,&num2,&num3);

    if(num1>num2&&num1>num3)

    {
```

```c
        printf("%d is the largest number.\n",num1);
    }
    else if(num2>num1&&num2>num3)
    {
        printf("%d is the largest number.\n",num2);
    }
    else
    {
        printf("%d is the largest number.\n",num3);
    }
    return 0;
}
```

3.Grading system:

```c
#include<stdio.h>
int main()
{
    int a;
    printf("Enter the number :");
    scanf("%d",&a);
    if(a>=80)
    {
        printf("A+");
    }
    else if(a>=70)
    {
        printf("A");
```

```c
    }
    else if(a>=60)
    {
        printf("A-");
    }
    else if(a>=50)
    {
        printf("B");
    }
    else if(a>=40)
    {
        printf("C");
    }
    else
    {
        printf("F");
    }
    return 0;
}
```

4 .Whether an integer number is positive ,negative or neutral:

```c
#include<stdio.h>
int main()
{
    int a;
    printf("Enter the number :");
    scanf("%d",&a);
```

```c
    if(a>=1)
    {
        printf("The number is a positive integer.\n");
    }
    else if(a==0)
    {
        printf("The number is neutral.\n");
    }
    else
    {
            printf("The number is a negative integer.\n");
    }
    return 0;
}
```

5.Whether a character is vowel or consonant

```c
#include<stdio.h>
int main()
{
    char sign ;
    printf("Enter the character :");
    scanf("%c",&sign);
    if(sign=='a'||sign=='e'||sign=='i'||sign=='o'||sign=='u')
    {
        printf("%c is a vowel.\n",sign);
    }
    else
    {
```

```c
        printf("%c is a consonant",sign);
    }
    return 0;
}
```

6.Whether an integer prime or not:

```c
#include<stdio.h>
int main()
{
    int a,i,k=0;
    printf("Enter the number :");
    scanf("%d",&a);
    for(i=1;i<=a;i++)
    {
        if(a%i==0)
        {
            k=k+1;
        }
    }
    if(k==2)
    {
        printf("%d is a prime number.\n",a);
    }
    else
    {
        printf("%d is not a prime number.\n",a);
    }
    return 0;
```

}

7.Whether eligible to cast vote or not:

```c
#include<stdio.h>

int main()
{
    int a;
    printf("Enter the age :");
    scanf("%d",&a);
    if(a>=18)
    {
        printf("Eligible to cast vote.\n");
    }
    else
    {
        printf("Not eligible.\n");

    }

    return 0;
}
```

8.Write a C program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0 :

```c
#include<stdio.h>

int main()
{
    int m,n;
```

```c
    printf("Enter the number :");

    scanf("%d",&m);

    if(m>=1)

    {

        printf("n=1.\n");

    }

    else if(m==0)

    {

        printf("n=0.\n");

    }

    else

    {

        printf("n=-1.\n");

    }

    return 0;

}
```

9. C program to accept the height of a person in centimeters and categorize the person according to their height.

```c
#include<stdio.h>

int main()

{

    int h;

    printf("Enter height in centimeters :");

    scanf("%d",&h);

    if(h<150)

    {

        printf("Dwarf.\n");
```

```c
    }
    else if(h==150)
    {
        printf("Average height.\n");
    }
    else
    {
        printf("Tall.\n");
    }
    return 0;
}
```

10. C program to read temperature in centigrade and display a suitable message according to the temperature state below:

```c
#include<stdio.h>
int main()
{
    int t;
    printf("Enter the temperature :");
    scanf("%d",&t);
    if(t<0)
    {
        printf("Freezing weather.\n");
    }
    else if(0<=t&&t<10)
    {
        printf("Very cold weather.\n");
```

```c
  }
  else if(10<=t&&t<20)
  {
     printf("Cold weather.\n");
  }
  else if(20<=t&&t<30)
  {
     printf("Normal in temperature.\n");
  }
  else if(30<=t&&t<40)
  {
     printf("Hot weather.\n");
  }
  else
  {
     printf("Very hot weather.\n");
  }
  return 0;
}
```

11. C program to check whether a triangle can be formed with the given values for the angles.

```c
#include<stdio.h>
int main()
{
 int a,b,c;
 printf("Enter the value of the angles a,b,c :\n");
 scanf("%d%d%d",&a,&b,&c);
```

```c
    if(a+b+c==180)

    {

        printf("Triangle is possible.\n");

    }

    else

    {

        printf("Triangle is not possible.\n");

    }

    return 0;

}
```

12. C program to check whether a character is an alphabet, digit or special character.

```c
#include<stdio.h>

int main()

{

    char sign;

    printf("Enter the character :");

    scanf("%c",&sign);

    if((sign>='a'&&sign<='z')||(sign>='A'&&sign<='Z'))

    {

        printf("%c is an alphabet.\n",sign);

    }

    else if(sign>='0'&&sign<='9')

    {

        printf("%c is a digit.\n",sign);

    }

    else
```

```c
    {
        printf("%c is a special character.\n",sign);
    }


return 0;

}
```

13. C to accept a grade and declare the equivalent description

```c
#include<stdio.h>

int main()

{

    char grade;

    printf("Enter the grade :");

    scanf("%c",&grade);

    if(grade=='E')

    {

        printf("Excellent.\n");

    }

    else if(grade=='V')

    {

        printf("Very good.\n");


    }

    else if(grade=='G')

    {

        printf("Good.\n");

    }

    else if(grade=='A')
```

```c
    {
        printf("Average.\n");
    }


    else

    {
        printf("Fail.\n");
    }
return 0;
}
```

14. C program to read any day number in integer and display the day name in word format

```c
#include<stdio.h>
int main()
{
    int d;
    printf("Enter the number of day:");
    scanf("%d",&d);
    if(d==1)
    {
        printf("Monday.\n");
    }
    else if(d==2)
    {
        printf("Tuesday.\n");


    }
```

```c
        else if(d==3)
        {
            printf("Wednesday.\n");
        }
        else if(d==4)
        {
            printf("Thursday.\n");
        }
        else if(d==5)
        {
            printf("Friday.\n");
        }
        else if(d==6)
        {
            printf("Saturday.\n");
        }
        else if(d==7)
        {
            printf("Sunday.\n");
        }
        else
        {
            printf("Not valid.\n");
        }
    return 0;
}
```

Using switch

```c
#include<stdio.h>

int main()

{

    int day;

    printf("The number of day :\n");

    scanf("%d",&day);

    switch(day)

    {

    case 1 :

    {

        printf("Monday");

        break;

    }

    case 2 :

    {

        printf("Tuesday");

        break;

    }

    case 3 :

    {

        printf("Wednesday");

        break;

    }

    case 4 :

    {

        printf("Thursday");
```

```c
            break;
        }
        case 5 :
        {
            printf("Friday");
            break;
        }
        case 6 :
        {
            printf("Saturday");
            break;
        }
        case 7 :
        {
            printf("Sunday");
            break;
        }
        default:
        {
            printf("Not valid.\n");
        }
    }
    return 0;
}
```

15.C program to generate the following star pattern(1):

```c
#include<stdio.h>
int main()
```

```c
{
  int i,j;
  for(i=1;i<=5;i++)                          output    * * * * *
  {                                                    * * * * *
    for(j=1;j<=5;j++)                                  * * * * *
    {                                                  * * * * *
      printf("* ");                                    * * * * *
    }
    printf("\n");
  }
  return 0;
}
```

16.C program to generate the following star pattern(2):

```c
#include<stdio.h>                        output    *
int main()                                         * *
{                                                  * * *
  int I , j;                                        * * * *
  for(i=1 ;i<=5;i++)                                * * * * *
  {
    for(j=1;j<=i;j++)
    {
      printf("* ");
    }
    printf("\n");
  }
  return 0;
}
```

17. C program to generate the following numeric pattern(1):

```c
#include<stdio.h>

int main()
{
  int i,j;
  for(i=1;i<=5;i++)
  {
    for(j=1;j<=i;j++)
    {
      printf("%d",j);
    }
    printf("\n");
  }
return 0;
}
```

output
```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

18. C program to generate the following numeric pattern(2):

```c
#include<stdio.h>
int main()
{
  int i,j;
  for(i=1;i<=6;i++)
  {
    for(j=1;j<=i;j++)
    {
      printf("%d",i);
    }
```

output
```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
```

```c
        printf("\n");
    }
    return 0;
}
```

19.C program to display the sum of n terms of even natural numbers

```c
#include<stdio.h>
int main()
{
    int n,i,sum=0;
    printf("Enter the value of n.\n");
    scanf("%d",&n);
    printf("The even numbers are :\n");
    for(i=1;i<=n;i++)
    {
        printf("%d\n",2*i);
        sum=sum+(2*i);
    }
    printf("The sum of the n even numbers is : %d",sum);
    return 0;
}
```

20. C program that displays the n terms of square natural numbers and their sum.

```c
#include<stdio.h>
int main()
{
```

```c
    int n,i,sum=0;
    printf("Enter the value of n.\n");
    scanf("%d",&n);
    printf("The squares of the n numbers are :\n");
    for(i=1;i<=n;i++)
    {
       printf("%d\n",i*i);
       sum=sum+(i*i);
    }
    printf("The sum of the square of n  numbers is : %d",sum);
    return 0;
}
```

21. Write a program in C to find the sum of the series 1 +11 + 111 + 1111 + ... n terms.

```c
#include<stdio.h>
int main()
{
    int n,i,t,sum=0;
    t=1;
    printf("Enter the value of n.\n");
    scanf("%d",&n);
    printf("The series of n term is:\n");
    for(i=1;i<=n;i++)
    {
       printf("%d",t);
       if(i<n)
       {
```

```c
            printf("+");
        }
        sum=sum+t;
        t=(t*10)+1;
    }
    printf("\n");
    printf("The sum of the n term is : %d",sum);
    return 0;
}
```

22.Whether the entered number is perfect or not:

```c
#include<stdio.h>
int main()
{
    int n,i,sum=0;
    printf("Enter the number.\n");
    scanf("%d",&n);
    printf("The divisors of n are :\n");
    for(i=1;i<=n;i++)
    {
        if(n%i==0)
        {
            printf("%d\n",i);
            sum=sum+i;
        }
    }
    if(sum-n==n)/*As we can not add the entered number in the sum.*/
    {
```

```c
        printf("%d is a perfect number",n);
    }
    else
    {
      printf("%d is not a perfect number",n);
    }


    return 0;

}
```

23.N terms Fibonacci number :

```c
#include<stdio.h>
int main()
{
    int n,i,c,a=0,b=1;
    printf("Enter the value of n.\n");
    scanf("%d",&n);
    printf("The n term fibonacci numbers are :\n");
    printf("%d",a);
    printf(" ");
    printf("%d",b);
    printf(" ");
    for(i=3;i<=n;i++)
    {
     c=a+b;
     printf("%d",c );
     printf(" ");
```

```
  a=b;

  b=c;

}

return 0;

}
```

24. Program in C to display the number in reverse order.

```c
#include<stdio.h>

int main()

{

  int i,n,rev=0;

  printf("Enter the number.\n");

  scanf("%d",&n);

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

  {

    rev=rev*10+i%10;

  }

  printf("The reverse number is : %d",rev);

  return 0;

}
```

input : 123456789

output : 987654321

Another way

```c
#include<stdio.h>

//Reverse Order

int main() {

  int num, rem;

  printf("Enter a number: ");

  scanf("%d", &num);
```

```c
while (num != 0) {

    rem = num % 10;

    printf("%d", rem);

    num = num / 10;

}

return 0;
```