```c
#include<stdio.h>
//Check Amstrong no. by function type-4//
int amstrong(int);
void main()
 {
    int a,num;
    printf("Enter a no. here : ");
    scanf("%d", &num);

    a=amstrong(num);
    if(a==1)
    printf(" is an Armstrong number.");
    else
    printf(" is not an Armstrong number.");


 }
int amstrong(int num)
{
    int onum, remainder, result = 0;

    int n=0;
// no. of digit//

        for(onum=num;onum!=0;n++)
                {
                    onum=onum/10;
                }

//reduce  no.//

```

```
32:             for(onum=num;onum!=0;onum=onum/10)
33:                 {
34:                     remainder = onum % 10;
35:                     result =result+pow(remainder,
    n);
36:
37:                 }
38:
39:             //print with if esle//
40:                 if (result == num)
41:                 {
42:                 printf("%d",num);
43:                 return 1;
44:                 }
45:                 else
46:                 {
47:                 printf("%d",num);
48:                 return 0;
49:                 }
50: }
51:
```

```c
#include <stdio.h>
//for Amstrong no. range questions by function type-4  //
int range_amstrong(int);
void main()
{
    int num,a,lower,upper;
    printf("Enter Lower and Upper limit Here:");
    scanf("%d %d",&lower,&upper);

for(num=lower;num<=upper;num++)
    {

    a=range_amstrong(num);
    if(a==num)
     printf("%d ", num);

    }
}
int range_amstrong(int num)
{

    int  onum, remainder, result = 0;
    int n;
            result=0;n=0;

// no. of digit//
        for(onum=num;onum!=0;n++)
                {
                    onum=onum/10;
```

```
                }

        //reduce  no.//

//for loop//
            for(onum=num;onum!=0;onum=onum/10)
            {
                remainder = onum % 10;
            //result =result + remainder *
remainder * remainder;

                result =result+ pow(remainder,
n);

            }


    //printf("%d is an Armstrong number.",
result);
        //  if (result == num)
            return result;
        //  else
            //return 0;

}
```

```c
#include <stdio.h>

// Area & Perimeter of circle and Rectangle Function type 4//
float circlearea(float);
float circleperimeter(float);
float rectanglearea(float,float);
float rectangleperimeter(float,float);
void main()
{   float a,B,c,d;
    float r,l,b;

    printf("\nPlease Enter Radius Value in meters Here:\n");
    scanf("%f",&r);
    a=circlearea(r);
    printf("Area of Circle is %.2fsqm\n",a);

    printf("\nPlease Enter Radius Value again in meters Here for Perimeter of Circle:\n");
    scanf("%f",&r);
    B=circleperimeter(r);
    printf("Perimeter of Circle is %.2fm\n", B);

    printf("Please Enter Length and Breath value here Value in meters Here:\n");
    scanf("%f %f",&l,&b);
    c=rectanglearea(l,b);
    printf("Area of REctangle is %.2fsqm\n", c);
```

```
26:
27:     printf("Please Enter Length and Breath
    value Again here Value in meters Here For
    Perimeter of Rectangle:\n");
28:     scanf("%f %f",&l,&b);
29:     d=rectangleperimeter(l,b);
30:     printf("Perimeter of Rectangle is
    %.2fm\n",d);
31:
32: }
33:  float circlearea(float r)
34: {
35:     float Area;
36:
37:     //main formula//
38:
39:     Area=3.142*r*r;       //area...
40:     printf("\nThe Given Radius is=%.2fm\n",
    r);
41:     return Area;
42: }
43: float circleperimeter(float r)
44: {
45:     float Perimeter;
46:
47:     //main formula//
48:     Perimeter=2*3.142*r;
    //perimeter..
49:
50:     printf("\nThe Given Radius is=%.2fm\n",
    r);
```

```
51:     return Perimeter;
52: }
53:
54: float rectanglearea(float l,float b)
55: {
56:
57:     float Area;
58:
59:     //main formula//
60:     Area=l*b;       //area...
61:     return Area;
62: }
63:
64: float rectangleperimeter(float l,float b)
65: {
66:
67:     float Perimeter;
68:
69:     //main formula//
70:     Perimeter=2*(l+b);          //perimeter..
71:     return Perimeter;
72: }
73:
```

```c
#include <stdio.h>

//Check evev or odd Function type 4 //
int evenodd(int);
void main()
 {
    int a,n;
    printf("Please Enter No. Here ");
    scanf("%d",&n);
    a=evenodd(n);
    if(a==1)
    printf("         And\n The Given no. is Even\n");
    else
    printf("          And\n The Given no. is odd");

 }

int evenodd(int n)
{
    printf("Hey Your Entered NO. is:%d\n",n);


        if (n%2==0)
        {
            return 1;
        }
        else
        {
            return 0;
```

```
29:             }
30: }
```

```c
#include <stdio.h>

//...........Fibonacci by function type 4..../
//its not the best way to solve...but trying to solve it by type 4

int fibonacci(int,int);
void main()
{
    int n;
    printf("Enter the number of terms You want in Series: ");
    scanf("%d",&n);

      int  i;
      int t1 = 0, t2 = 1;
      int nextTerm;
      nextTerm = t1 + t2;
      printf("Fibonacci Series: %d %d ", t1, t2);

    for(i=3;i<=n;i++)
        {
            printf("%d ", nextTerm);
            t1 = t2;
            t2 = nextTerm;
            nextTerm =fibonacci(t1,t2);


        }
```

```
28: }
29: int fibonacci(int t1,int t2)
30: {
31:     int c;
32:     c=t1+t2;
33:     return c;
34: }
35:
```

```c
#include<stdio.h>

//with loop by function type-4//

int last_firstsum(int);
void main()
{
    int n,a;
    a=last_firstsum(n);
    printf("Sum of First and Last digit is:%d",a);

}
int last_firstsum(int n)
{

    int r,sum;
    printf("Enter Your Number Here:");
    scanf("%d",&n);
    r=n%10;
    while(n>10)
    {
        n=n/10;

    }
    printf("First digit is:%d\n",n);
    printf("Last digit is:%d\n",r);

    sum=r+n;
    return sum;
}
```

```c
#include <stdio.h>

// greatest of three no. by Function type 4
//
int Greatestnum(int,int,int);
void main()
 {
    int a;
    int n1,n2,n3;
    printf("Hey...Please Enter Integer Below\n");
    printf("\nPlease Enter first no. here ");
    scanf("%d",&n1);

    printf("Please Enter Second no. here ");
    scanf("%d",&n2);

    printf("Please Enter Third no. here ");
    scanf("%d",&n3);

    a=Greatestnum(n1,n2,n3);
    printf("The greatest no. is %d",a);

 }
 int Greatestnum(int n1,int n2,int n3)
 {

        if(n1>n2)
        {

            if (n1>n3)
```

```
30:                 return n1;
31:                 else
32:                 return n3;
33:
34:             }
35:
36:             else
37:             {
38:
39:                 if(n2>n3)
40:                 return n2;
41:                 else
42:                 return n3;
43:             }
44: }
```

```
1:
2:
3: #include <stdio.h>
4:
5: // Menu:merge program Function type 4//
6: int evenodd(int);
7: int totalsalary(int);
8: int choose_operator(int,int);
9:
10: void main()
11:  {
12:         int a,b,c,ch,num,n,n1,n2;
13:         printf("\n ....Hey This is our
    Menu!...\n ");
14:         printf("\n 1.Even Odd ");
15:         printf("\n 2.Total Salary ");
16:         printf("\n 3.Asking Two Number &
    Operator");
17:         printf("\nPlease enter your choice
    here:");
18:         scanf("%d",&ch);
19:
20:
21:     if(ch==1)
22:     {
23:         printf("Please Enter No. Here: ");
24:         scanf("%d",&num);
25:         a=evenodd(num);
26:         if(a==1)
27:         printf("         And\n The Given no.
    is Even\n");
```

```
28:          else
29:          printf("          And\n The Given no.
    is odd\n");
30:
31:       }
32:       if(ch==2)
33:       {
34:          printf("\nPlease Enter Your Salary
    here: ");
35:          scanf("%d",&n);
36:          b=totalsalary(n);
37:          printf("%d",b);
38:
39:       }
40:      if(ch==3)
41:      {
42:          printf("Please Enter first no. here:
    ");
43:          scanf("%d",&n1);
44:
45:          printf("Please Enter Second no. here:
    ");
46:          scanf("%d",&n2);
47:
48:          c=choose_operator(n1,n2);
49:          printf("Your outcome is:%d",c);
50:
51:       }
52: }
53:
54:
```

```
55: //Even odd//
56: int evenodd(int num)
57: {
58: //int num;
59:
60:
61:             printf("Hey Your Entered NO.
    is:%d\n",num);
62:                 if (num%2==0)
63:                 {
64:                     return 1;
65:                 }
66:                 else
67:                 {
68:                     return 0;
69:                 }
70: }
71: //salary //
72: int totalsalary(int n)
73: {
74:     int tl,tm;
75:
76:     //Main formula//
77:
78:             tl=n+n*0.1+n*0.2+n*0.25;
    // less than 5000
79:             tm=n+n*0.15+n*0.25+n*0.3;
    // more than 5000
80:
81:             printf("Hey Your Entered basic
    Salary is:%d\n",n);
```

```
82:
83:                 if (n<=5000)
84:                 {
85:                     printf("Your Total salary
    is= ");
86:                     return tl;
87:                 }
88:                 else
89:                 {
90:                     printf("Your Total salary
    is= ");
91:                     return tm;
92:
93:                 }
94: }
95:
96: // two no. and operator//
97: int choose_operator(int n1,int n2)
98: {
99:     int sum,sub,mul,mod,div;
100:
101:             char hi;
102:
103:             /*printf("\n 1.  addition ");
104:             printf("\n 2.  subtraction ");
105:             printf("\n 3.  multiplication ");
106:             printf("\n 4.  division");
107:             printf("\n 5.  Modulus ");*/
108:
109:             fflush(stdin);
110:             printf("Please Enter operator
    here: ");
```

```
111:                 scanf("%c",&hi);
112:
113:                     if(hi=='+')
114:                     {
115:                         sum = n1+n2;
116:                         return sum;
117:                     }
118:
119:                     else if(hi=='-')
120:                     {
121:                         sub = n1-n2;
122:                         return sub;
123:                     }
124:                     else if(hi=='*')
125:                     {
126:                         mul = n1*n2;
127:                         return mul;
128:                     }
129:                     else if(hi=='%')
130:                     {
131:                         mod = n1%n2;
132:                         return mod;
133:                     }
134:                     else if(hi=='/')
135:                     {
136:                         div = n1/n2;
137:                         return div;
138:                     }
139: }
140:
141:
```

```c
#include <stdio.h>
// one digit to word function type 4//
int num_word(int);
void main()
{
    int a,n;
    printf ("Enter one digit or two digit number Here....!\n");
    scanf("%d",&n);
    a=num_word(n);
}
int num_word(int n)
{
    int q,r;

    printf ("Your Conversion is ....!\n");

    r=n%10;
    q=n/10;

        if (n>10 && n<20)
        {

            if (r==1)
            printf ("eleven\n");
            else if (r==2)
            printf ("Twelve\n");
            else if (r==3)
            printf ("Thirteen\n");
            else if (r==4)
            printf ("fourtheen\n");
```

```
31:                 else if (r==5)
32:                 printf ("fifteen\n");
33:                 else if (r==6)
34:                 printf ("Sixteen\n");
35:                 else if (r==7)
36:                 printf ("Seventeen\n");
37:                 else if (r==8)
38:                 printf ("Eighteen\n");
39:                 else if (r==9)
40:                 printf ("Nineteen\n");
41:             }
42:
43:                 else {
44:
45:                 if (q==1)
46:                 printf ("Ten\n");
47:                 else if (q==2)
48:                 printf ("twenty");
49:                 else if (q==3)
50:                 printf ("Thirty");
51:                 else if (q==4)
52:                 printf ("fourty");
53:                 else if (q==5)
54:                 printf ("fifty");
55:                 else if (q==6)
56:                 printf ("Sixty");
57:                 else if (q==7)
58:                 printf ("Seventy");
59:                 else if (q==8)
60:                 printf ("Eighty");
61:                 else if (q==9)
```

```
62:                 printf ("Ninety");
63:
64:
65:                 if  (r==1)
66:                 printf ("One\n");
67:                 else if (r==2)
68:                 printf ("Two\n");
69:                 else if (r==3)
70:                 printf ("Three\n");
71:                 else if (r==4)
72:                 printf ("four\n");
73:                 else if (r==5)
74:                 printf ("five\n");
75:                 else if (r==6)
76:                 printf ("Six\n");
77:                 else if (r==7)
78:                 printf ("Seven\n");
79:                 else if (r==8)
80:                 printf ("Eight\n");
81:                 else if (r==9)
82:                 printf ("Nine\n");
83:
84:                 else
85:                 printf ("Invalid Input");
86:
87:                 }
88: }
89:
90:
91:
92:
```

```c
#include<stdio.h>
// only check palindrome or not by function type 4//
int palindrome(int);
void main()
{
    int a,n;
    printf("Enter no. Here to Check Palindrome or not ");
    scanf("%d",&n);
    a=palindrome(n);
    if(a==1)
    printf("Hey Your Entered Number is Palindrome");
    else
    printf("Hey Your Entered Number is Not Palindrome");
}

int palindrome(int n)
{

    int r,reverse=0,i;

//for loop//
    for(i=n;n>0;n=n/10)
    {
        r=n%10;
        reverse=reverse*10+r;

    }
```

```
28:
29:     return(i==reverse)?1: 0;
30: }
31:
```

```c
#include<stdio.h>

//just check no. is perfect or not by Function type 4//
int perfect(int);
void main()
{
    int n,a;
    printf("Enter the number You want to Check: ");
    scanf("%d", &n);
    a=perfect(n);
    if(a==1)
    printf(" is a Perfect Number");
    else
    printf(" is Not a Perfect Number");


}
int perfect(int n)

{

  int  i,sum=0;

//for loop//
        for(i=1;i<n;i++)
        {
            if(n%i==0)
            {
            sum=sum+i;
```

```
30:                 }
31:             }
32:                 if(sum==n)
33:                 {
34:                 printf("\n%d",n);
35:                 return 1;
36:                 }
37:                 else
38:                 {
39:                 printf("\n%d",n);
40:                 return 0;
41:                 }
42: }
43:
44:
```

```c
#include <stdio.h>
//perfect no. range ask for both range function type 4//
int perfect_range(int);
void main()
{
    int a,i,low,end;
    printf("Enter upper and Lower limit: ");
    scanf("%d %d", &low ,&end);
    printf("All Perfect numbers between % to %d:\n",low, end);

    for(i=low; i<=end; i++)
    {
    a=perfect_range(i);
    if(a==i)
    printf(" %d\t",i);
    }

}
int perfect_range(int i)
 {

    int  j,sum;



    // range loop//

        sum = 0;

```

```
30:  //condition//
31:
32:          for(j=1; j<i; j++)
33:          {
34:              if(i % j == 0)
35:              {
36:                  sum += j;
37:              }
38:          }
39:
40:         if(sum == i)
41:          {
42:              return i;
43:          }
44:
45:
46:  }
47:
```

```c
#include <stdio.h>

// From Discount find Price using Function type 4 //
float Discountprice(float);
void main()
 {
    float a,price;

    printf("Please Enter Price here: \n");
    scanf("%f",&price);

    a=Discountprice(price);
    printf("Payable amount after Discount is %.2f\n",a);

 }
float Discountprice(float price)
{

    float total,dis;


        if (price<=500)
        {

            printf("Hey..Discount on item is 5%%. \n");
            dis=price*0.05;
        }
        else if(500<price && price <=1000)
```

```
29:         {
30:             printf("Hey..Discount on item is
    10%%. \n");
31:             dis=price*0.1;
32:         }
33:         else if(1000<price)
34:         {
35:             printf("Hey..Discount on item is
    15%%. \n");
36:             dis=price*0.2;
37:         }
38:
39:
40:         total=price-dis;
41:         printf("Your Price of Item was %.2f
    \n",price);
42:         printf("Discount on item is %.2f%%\n",
    dis);
43:         return total;
44: }
45:
46:
```

```c
#include<stdio.h>
// prime no.range by function -4 //
int range_prime(int,int);
void main()

{
    int a,low,high;
    printf("Enter two numbers intervals: ");
    scanf("%d %d", &low, &high);
    printf("Your Prime numbers btw %d to %d are:\n",low,high);

    for(low=2;low<high;low++)
    {

        a=range_prime(low,high);
        if(a==1)
        printf("\t%d",low);
    }
}
int range_prime(int low,int high)
{

   int  i, count=0;

   // range alot


 //for loop//


```

```
31:
32:       count = 0;
33:
34:        for (i = 2; i <= low / 2; ++i)
35:        {
36:
37:           if (low % i == 0)
38:            {
39:              count = 1;
40:             break;
41:            }
42:        }
43:
44:
45:        if (count == 0)
46:          return 1;
47: }
48:
49:
50:
51:
```

```c
#include<stdio.h>
//Check Strong number by Function type-4//
int strong(int);
void main()
{
    int a,n;
    printf("Enter a Number u want to Check here:");
    scanf("%d",&n);

    a=strong(n);
    if(a==1)
    printf("The Above number is a Strong Number");
    else
    printf("The Above number is not a Strong Number");

}
int strong(int n)
{

    int i=1,r,sum=0,fact,temp;


//for loop//
//range loop//
    for(temp=n;n;n=n/10)
    {

        fact=1;
```

```
29:             r=n%10;
30: //condition
31:             for(i=1;i<=r;i++)
32:             {
33:                 fact=fact*i;
34:             }
35:             sum=sum+fact;
36:         }
37:         //by ternary//
38:
39:         return(sum==temp && temp!=0)?1:0;
40:
41:
42: }
43:
```

```c
#include<stdio.h>
// strong no range function type 4//

int strong_range(int);
void main()

{
    int n1,a,k,low,high;
    printf("Enter a lower and upper limit u want to Check here:");
    scanf("%d %d",&low,&high);
    printf("Hey Your Strong Numbers btw your limits are:");
    for(k=low;k<=high;k++)
    {

    a=strong_range(k);
    if(a==k)
    printf("%d\t",k);

    }

}
int strong_range(int k)
{

    int n,i=1,r,sum=0,fact=1,n1;


//for loop//
//range loop//
```

```
30:      n1=k;
31:      sum=0;
32:
33:      for(n=k;n;n=n/10)
34:      {
35:          fact=1;
36:          r=n%10;
37: //condition for factorial
38:          for(i=1;i<=r;i++)
39:          {
40:              fact=fact*i;
41:          }
42:          sum=sum+fact;
43:      }
44:
45:          if(sum==k)
46:          return sum;
47:          }
48:
49:
```

```c
#include<stdio.h>
//Student and discount by Function type 4//
int Student_Discount(int);
void main()
{
    int a,price,s;
    printf("Hey enter the price here\n");
    scanf("%d",&price);

    a=Student_Discount(price);
    printf("Payable Price is=%d\n",a);

}
int Student_Discount(int price)
{
    char s;
    fflush(stdin);
    printf("hey r u student!\n.... Type y for yes and n for no...\n ");
    scanf("%c",&s);

    int dis,final;
    if(s=='y')
    {
         if(price>500)
        {
        dis=price*0.2;
        final=price-dis;
        printf("Hey Your Discount is:20%5%\n");
        return final;
```

```
30:          }
31:          else
32:          {
33:          dis=price*0.1;
34:          final=price-dis;
35:          printf("Hey your Discount is:10%%\n
     ");
36:          return final;
37:
38:          }
39:      }
40:
41:
42:          if(s=='n')
43:      {
44:
45:              if (price>600)
46:
47:              {
48:              dis=price*0.15;
49:              final=price-dis;
50:              printf("Hey Your Discount
     is:15%%\n");
51:              return final;
52:
53:              }
54:              else
55:
56:              {
57:              printf("Sorry! NO discount\n");
58:              return price;
```

```
59:                 }
60:
61:     }
62: }
```

```c
#include <stdio.h>

//Sum of digit and its reverse using sum Function type 4//
int sum(int);
int reverse(int);
void main()
 {
    int a,b,n;
    printf("Please Enter Three digit No. Here: ");
    scanf("%d",&n);
    a=sum(n);
    printf("The sum of The Above digits is=%d\n",a);

    b=reverse(n);
    printf("The reverse of enter Digits is=%d\n",b);

 }
 int sum(int n)
 {
int r,q,q1,r1,sum;


    //main formula//eg..241 ;

    r=n%10;//1
    q=n/10;//24
    q1=q/10;//2
```

```
28:     r1=q%10;//4
29:
30:     sum=q1+r1+r;
31:     printf("The Given Three digit no.
    is=%d\n",n);
32:     return sum;
33: }
34: int reverse(int n)
35:  {
36: int r,q,q1,r1,sum, reverse;
37:
38:
39:     //main formula//eg..241 ;
40:
41:     r=n%10;//1
42:     q=n/10;//24
43:     q1=q/10;//2
44:     r1=q%10;//4
45:
46:     reverse = r*100+(r1*10)+q1;//100+40+2=142
47:
48:     printf("\nThe Given Three digit no.
    is=%d\n",n);
49:     return reverse;
50: }
51:
```

```c
#include <stdio.h>

//Cases temperature conversion Function type 4//

float conversion(float,char);
void main()
 {
    float a,t;
    char ch;
    printf("Choose for before u enter Temperature\n");
    printf("Enter 1:To convert in Fahrenhiet");
    printf("\nEnter 2:To convert in Kelvin\n");
    scanf("%c",&ch);
    printf("Enter the temperature here:");
    scanf("%f",&t);

    a=conversion(t,ch);
    printf("%.2fF",a);
}
//Ask from user choice //

float conversion(float t,char ch)
{
    float f,k;
    //char ch;
    //main formula 9c=(f-32)5//
if(ch=='1')
```

```
28: {
29:     f=(1.8*t)+32;       //fahrenhiet...
30:     printf("Conversion of given tempertaure
    in Fahrenhiet is ");
31:
32:     return f;
33:     }
34: else if(ch=='2')
35:     {k=273+t;           //kelvin..
36:     printf("Conversion of given tempertaure
    in Kelvin is ");
37:     return k;
38:     }
39: }
```

```c
#include <stdio.h>

//Total salary Function type 4//
int totalsalary(int);
void main()
{
    int a,n;
    printf("Please Enter Your Salary here: ");
    scanf("%d",&n);

    a=totalsalary(n);
    printf("            And  \nYour Total salary is=%d\n",a);

}
int totalsalary(int n)
{
    int tl,tm;


    //Main formula//

    tl=n+n*0.1+n*0.2+n*0.25;        // less than 5000
    tm=n+n*0.15+n*0.25+n*0.3;       // more than 5000

    printf("Hey Your Entered basic Salary is:%d\n",n);

```

```
27:          if (n<=5000)
28:          {
29:              return tl;
30:          }
31:          else
32:          {
33:             return tm;
34:          }
35: }
```

```c
#include <stdio.h>

// TWO NO WITH OPERATOR. by Function type 4//
int Choose_operator(int,int);
void main()
 {
    int n1,n2;
    int a;
    printf("Please Enter first no. here:");
    scanf("%d",&n1);

    printf("Please Enter Second no. here: ");
    scanf("%d",&n2);

    a=Choose_operator(n1,n2);
 printf("Your outcome is:%.3f",a);

 }
 int Choose_operator(int n1,int n2)
 {

  int sum,sub,mut,mod,div;
    char ch;

        /*printf("\n 1.  addition ");
        printf("\n 2.  subtraction ");
        printf("\n 3.  multiplication ");
        printf("\n 4.  division");
        printf("\n 5.  Modulus ");*/

    fflush(stdin);
```

```
32:     printf("Please Enter operator here: ");
33:
34:     scanf("%c",&ch);
35:
36:     if(ch=='+')
37:     {
38:         sum = n1+n2;
39:         return sum;
40:     }
41:     else if(ch=='-')
42:     {
43:         sub = n1-n2;
44:         return sub;
45:     }
46:     else if(ch=='*')
47:     {
48:         mut=n1*n2;
49:         return mut;
50:     }
51:     else if(ch=='/')
52:     {
53:         div=n1/n2;
54:         return div;
55:     }
56:     else if(ch=='%')
57:     {
58:         mod=n1%n2;
59:         return mod;
60:     }
61:
62: }
```