# Assignment-4

① // Given number is positive or not :

```
#include<stdio.h>
 int main()
{
   int x;
   printf("\t ENTER NMBR:");
   scanf("%d",&x);
    if (x>0)
     { printf("\n POSITIVE");
      }
   else
     { if (x<0)
       {printf("\n NEGATIVE);}
       else
         printf("0");
     }
   return 0;
   }
```

OUTPUT WINDOW

x = 5

⇒ POSITIVE.

② // Given number is odd or even :

```
#include<stdio.h>
 int main()
{  int x;
    printf("ENTER NMBR:");
    scanf("%d",&x);
    if (x%2==0)
    { printf("EVEN");
    }
    else
      printf("ODD");
    return 0;
}
```

OUTPUT WINDOW

x = 1

⇒ ODD

(03). // Find Largest Among two given numbers:

```
#include <stdio.h>
int main ( )
{
   int a, b ;
   printf (" ENTER TWO NUMBERS:" );
   scanf (" %d%d", &a, &b ) ;
   if (a> b )
    { printf (" Largest : %d", a) ;
    }
   else
    { printf (" Largest : %d", b) ;
    }
  return 0 ;
}
```

OUTPUT WINDOW

a=5 , b=3

→ Largest is 5

(04) // Given number is divisible by 7 or not :

```
#include <stdio.h>
int main ( )
{
   int x ;
   printf (" Enter nmbr:" );
   scanf ("%d", &x);
   if (x%7==0 )
   {
      printf (" Yes! Divisible" ) ;
   }
   else
    { printf (" Not Divisible" );
    }
   return 0 ;
}
```

OUTPUT WINDOW

x=14

→ Yes! Divisible.

(05). // Given number is divisible by 11 and 13 or not:

```
#include<stdio.h>
int main ()
{
   int x ;
   printf("Enter nmbr: ");
   scanf("%d", &x);
  if (x%11==0  &&  x%13==0 )
  {
    printf ("DIVISIBLE");
  }
 else
  { printf ("NOT DIVISIBLE");
  }
 return 0;
 }
```

OUTPUT WINDOW

x = 20

=> NOT DIVISIBLE.

(06) // Check Validity of a Triangle :

```
#include <stdio.h>
int main()
{
   int a,b,c;
   printf("Enter Sides: \n");
   scanf("%d %d %d", &a, &b, &c);
  if( (a+b)>c && (b+c)>a && (a+c)>b )
   { printf("Valid");
   }
  else
   { printf("Invalid");
   }
  return 0;
}
```

OUTPUT WINDOW

a=1, b=2, c=3

=> Invalid Triangle

07. // Evaluation Of Expression

```
#include <stdio.h>
int main ()
{
   int a, b, c, d, x ;
   printf (" Enter a,b,c,d : \n" );
   scanf (" %d %d %d %d", &a, &b, &c, &d);
   if (c==d )
     printf (" Error");
   else
    { x = (a-b)/(c-d) ;
      printf (" \n x=%d", x) ;
    }
   return 0;
}
```

OUTPUT WINDOW

a=1
b=2
c=3
d=4
⇒ x=1

08. // Displaying floor and ceiling for a floating point number as input:

```
#include <stdio.h>
int main ()
{ float n ;
   int f, c ;
   printf ("\n Enter The nmbr:");
   scanf (" %f", &n );
   if( n - (int) n ==0 )
   { f = (int) n ;
     c = f ;
   }
   else
     { if (n>0)
       { f =(int) n ;
         c = (f+1) ;
       } else
         c=(int) n ;
         f = c-1 ;
     }
     printf ("\n Floor : %d", f) ;
     printf ("\n Ceiling: %d", c) ;
    return 0; }
```

OUTPUT WINDOW

n = 1.2

⇒ Floor = 1 and

Ceiling = 2

(09). // Given 3-digit number is Palindrome or Not:

```
#include<stdio.h>
int main ()
{
   int n ;
   printf ("Enter 3-Digit No. : \n" );
   scanf ("%d", &n );
   if ( n/100 == n%10 )
    {  printf ("\n Yes, It is Palindrome");
    }
   else
    {
     printf ("\n Not Palindrome");
    }
  return 0;
}
```

OUTPUT WINDOW

n = 191

→ Yes, It is Palindrome

(10). // System of Two variables:

```
#include <stdio.h>
int main ()
{
   int a,b,c,d,m,n, x1, x2 ;
   printf (" Enter a,b,c,d,m,n") ;
   scanf ("%d %d %d %d %d %d", &a, &b, &c, &d, &m, &n) ;

   if ( (a*d - c*b) != 0)
    {
        x1 = (m*n - b*n) / (a*d - c*b) ;
        x2 = (n*a - c*m) / (a*d - c*b);
       printf ("\n x1 = %d and x2 = %d", x1, x2 );
    }
     else
       printf (" Wrong values entered");
   return 0;
}
```

OUTPUT WINDOW

a = 1
b = 2
c = 3
d = 4
m = 5
n = 6

$\Rightarrow x_1 = -9$ and $x_2 = 4$

(11). // Leap Year or not using nested if statements:

```
#include <stdio.h>
 int main ()
{  int y ;
   printf (" \n Enter a Year :") ;
   scanf ("%d", &y);
    if (y % 100 == 0)
      {  if (y % 400 == 0)
           printf ("\n %d is a leap year", y ) ;
         else
           printf ("\n %d is not a leap year", y ) ;
      }
    else
      {  if (y % 4 == 0 )
           printf ("\n %d is a leap year", y);
```

```
    else
      printf("\n %d is not a leap year", y);
    }
return 0;
}
```

OUTPUT WINDOW:

Enter a year : 2053

2053 is not a year.