Assignment - 8

(1) Write a program to check whether a given number is divisible by 3 and divisible by 2.

Ans -
```
#include <stdio.h>
int main()
{ int x;
  printf("enter a number");
  Scanf("%d", x); }
if
(x%3 == 0 && x%2 == 0)
  printf ( Divisible by 3 & 2 )

else
  printf( "Not Divisible by 3 & 2");
  getch();
```

(2) write a program to check wheather a given number is divisible by 7 or devisible by 3.

Ans -
```
int main();
{ int x;
  printf ("enter a number");
  Scanf ("%d, &x);

if (x%7==0 || x%3 == 0);
  printf (Divisible);

else
  printf ("Not Divisible);
```

③ Write a program to check whether a given number is positive, negative or zero.

Ans -

```
# include<stdio.h>
int main()
{ int x;
  printf("enter a number");
  scanf("%d", x);
if
  (x>0)
    printf("positive");
else.
  (x<=0)
    printf("Nagative");
```

④ Write a programm to check given year is leap year or not.

Ans -

```
# include<stdio.h>
int main() {.
  int y;
printf("Enter the year to check");
 scanf("%d", &y);
if ((y%.4==0) && (y%.100==0) || (y%.400==0))
  printf("It is a leap year");
else
  printf("Not leap year");
```

(5) Write a program to check greater among three numbers. If two or three numbers are identical and greatest among all then print it only once.

Ans -
```
# include <stdio.h>
int main() {
double n1, n2, n3;
        printf("enter three different number's")
        scanf("%lf %lf %lf", &n1, &n2, &n3);

if (n1>=n2 && n1>=n3)
        printf("%.2f is the largest number", n1)

if (n2>=n1 && n2>=n3)
        printf("%.2f is the largest number", n2)

if (n3>=n1 && n3>=n2)
        printf("%.2f is the largest number", n3)
        getch();
```

(6) Write a program to check given character is an alpabet (uppercase), an alphabet (lower case), a digit or a special character.

Ans -
```
main()
{ char x;
    printf("enter a character");
      scanf("%c", &x);
```

```
if (x >= 'A' && x <= 'z')
    printf ("uppercase Alphabet");
else if (x >= 'a' && x <= 'z')
    printf ("Lowercase Alphabet");
else if (x >= '0' && x <= '9')
    printf ("Digit");

else printf ("special character");
getch();
```

(7) Write a program which takes the length of the sides of a tringle as an input. Display tringle valid or not

Ans -

```
#include<stdio.h>
int main();
{
a = int (input ("Enter first side: "));
b = int (input ("Enter second side:"));
c = int (input ("Enter third side:"));

if a+b > c and b+c > a and a+c > b:
    printf ("Triangle possible");
else:
    printf ("Tringle Not possible);
```

(8) Write a program which takes the month number as an input and display number of days in their month.

Ans -

```
# include <stdio.h>
int main()
{ int month;
    printf("Enter month number (1-12): ");
    Scanf ("%d", & month);
if
 (month == 1 || month == 3 || month == 5 || month == 7 ||
 month == 8 || month == 10 || month == 12)
     printf(" 31 days");

if (month == 4 || month == 6 || month == 9 || month == 11)
        printf(" 30 Days");

if ( month == 2 )
        printf(" 29 or 28");
getch();
```

(9) Write a program to input marks of five subjects physics, chemistry, Biology, Mathematics and Computer Calculate percentage grade according to following :—

Ans -

```
int main()
{ int a, b, c, d, e;
  float per;

printf("enter five subjects marks");
Scanf("%d %d %d %d %d", &a, &b, &c, &d, &e)

per = (a+b+c+d+E/5.0);
   printf (" Percentage = %.2f\n", Per);
```

```
if (per >= 90%)
  { printf ("Grade A");

else if (per >= 80%).
  { printf ("Grade B");

else if (per >= 70%)
  { printf ("Grade C");

else if (per >= 60%)
  { printf ("Grade D");

else if (per >= 40%)
  { printf ("Grade E");

else (per <= 40%)
  printf ("Grade F");
```

(10) Write a program to find nature roots of a quadratic equation.

Ans -

```
main()
{   float a, b, c, r1, r2, d;
    printf("enter the values of a b c");
    Scanf("%f %f %f", &a, &b, &c);
      d = b*b - 4*a*c;

if (d > 0) {
    r1 = - b + sqrt(d) / (2*a);
    r2 = -b - sqrt(d) / (2*a);
      printf ("The real roots = %f %f", r1, r2);
}
```