Assignment — 8 (C language)

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

```
#include<stdio.h>
int main()
{ int n;
Printf("Enter number");
Scanf("%d", &n);

if(n%3==0 && n%2==0)
  Printf("Divisible");

else
  Printf("Not Divisible");
return 0;
}
```

(02) Write a Program to check whether a given number is divisibe by 7 or divisible by 3.

```
#include<stdio.h>
int main()
{ int n;
Printf("Enter number");
Scanf("%d", &n);
if(n%7==0 || n%3==0)
  Printf("Divisible");

else
  Printf("Not Divisible");
return 0;
}
```

(03) Write a program to check whearther a given number is positive, negtive or zero.

```
#include<stdio.h>
int main
{ int n;
Printf("Enter Number");
Scanf("%d", &n);
if(n>0)
Printf("Positive);
```

```
else if(n<0);
Printf("zero");
else
Printf("negtive);
return 0;
}
```

```
else if(n<0)
Printf("negtive");
else
Printf("negtive);
return 0;
}
```

(04) Write a program to check wheather a given year is a leap year or not. (2)

```
#include<stdio.h>
 int main()
{ int year;
  Printf("Enter year");
  Scanf("%d", &year);
if((year%100==0 && year%400==0) || (year%400!=0 && year%4==
      Printf("leap year");

else
 Printf("normal year");
  return 0;
}
```

(05) Write a Program to find greater among three numbers. If two or three numbers are identical and greatest among all them print it only once.

```
#include<stdio.h>
 int main()
{ int n1, n2, n3;
  Printf("Enter number");
  Scanf("%d %d %d", &n1, &n2, &n3);
if(n1>n2 && n1>n3)
  Printf("Greatest No: %d", n1);
else if(n2>n1 && n2>n3)
   Printf("Greatest No: %d", n2);
else if(n3>n1 && n3>n2)
   Printf("Greatest No: %d", n3);
else if(n2==n3 && n2>n1)
   Printf("Greatest No: %d", n2);
 else
   Printf("All No. are identical");
   return 0;
}
```

(06) Write a Program to check wheather a given character is as alphabet(UPPER Case), an alphabet(lower Case), a digit or a Special Character

```
#include<stdio.h>
int main()
{ char x;
  Printf("Enter Input");
  Scanf("%c", &x);

If(x>='A' && x<='Z').
  Printf("UPPER CASE");
else if(x>='a' && x<='z')
  Printf("lower case");
else if(x>='0' && x<='9')
   Printf("Digit");

else
  Printf("Special Character");
 return 0;
}
```

(07) Write a Program which takes the length of the sides of a triangle as an input. Display wheather the triangle is valid or not.

```
# include<stdio.h>
  int main()
{ int s1, s2, s3;
  Printf("Enter Sides");
  Scanf("%d %d %d", &s1, &s2, &s3);

If(s1+s2> s3 && s2+s3 > s1 && s3+s1 > s2)
    Printf("Valid triangle");

else
Printf("Invalid triangle");
return 0;

}
```

(98) Write a program which takes the Month number as an input and display number of days in that Month. (4)

```
#include<stdio.h>
int main()
{ int month_num;
Printf("Enter Month_num(0-12)");
Scanf("%od", &month_num);

if(Month_num==1 || month_num==3 || month_num==5 || month_num==7 ||
   month_num==8 || month_num==10 || month_num==12)
  {
    Printf("31 Days");
  }
else if(month_num==4 || month_num==6 || month_num==9 || month_num
   ==11)
  {
    Printf("30 Days");
  }
else if(month_num==2)
  {
    Printf("28/29 Days");
  }
else
  Printf("Invalid month_num);
  return 0;
}
```

(99) Write a Program to find the nature of roots of a quadratic equation

```
#include<stdio.h>
int main()
int a, b, c, d;
Printf("Enter Coficent");
Scauf("%od %od %od", &a, &b, &c);

d = b*b - 4ac;
if(d>0)
Printf("Real and distinct Roots");
else if(d==0)
Printf("Real and equal Roots");
```

```
else
Printf("Imaginary Roots");
return 0;
```

10) Write a C Program to input marks of five Subjects - Physics, Chemistry, Biology, Mathematics and Computer. Calculate Percentage and grade according to following:

Percentage >= 90% : Grade A
Percentage >= 80% : Grade B
Percentage >= 70% : Grade C
Percentage >= 60% : Grade D
Percentage >= 50% : Grade E
Percentage < 40% : Grade F

```
#include <stdio.h>
int main()
{ int Phy, che, Bio, Math, Com, Percentage ;
  Printf("Enter Marks");
  Scanf("%d %d %d %d %d, &Phy, &che, &Bio, &math, &Com)

     Percentage = (Phy+Che+Bio+Maths+Com)/5 ;

  If (Percentage >= 90)
  Printf(Percentage : %d %% Grade="A", Percentage);
elsIf (Percentage >= 80)
   Printf("Percentage : %d %% Grade = B", Percentage);
else if (Percentage >= 70)
   Printf("Percentage : %d %% Grade = C", Percentage);
else if (Percentage >= 60)
     Printf("Percentage : %d %% Grade D", Percentage);

else if (Percentage >= 50)
     Printf("Percentage : %d %% Grade E", Percentage);
che if(Percentage < 40)
     Printf("Percentage : %d %% Grade f", Percentage);

 else
 Printf("fail");
```