Assignment-3

(1)
```c
#include<stdio.h>
int main()
{
   int x;
   printf("Enter a number ");
   scanf("%d",&x);
   if(x>0)
      printf("positive");
   else
      printf("Non-Positive");
   return 0;
}
```

(2)
```c
#include<stdio.h>
int main()
{
   int x;
   printf("Enter a number ");
   scanf("%d",&x);
   if(x%5)
      printf(" Not Divisible by 5");
   else
      printf("Divisible by 5");
   return 0;

}
```

(3)
```c
#include<stdio.h>
int main()
{
   int x;
   printf("Enter a number ");
   scanf("%d",&x);
   if(x%2)
      printf("Odd number");
   else
      printf("Enen number");
   return 0;
}
```

(4)
```c
#include<stdio.h>
int main()
{
   int x;
   printf("Enter a number ");
   scanf("%d",&x);
   if(x/2*2==x)
      printf("Even number");
   else
```

```c
      printf("Odd number");
    return 0;
}

(5) #include<stdio.h>
int main()
{
  int x;
  printf("Enter a number ");
  scanf("%d",&x);
  if(x>=100 && x<=999)
    printf("This is a three digit number");
  else
    printf("This is a not three digit number");
    return 0;
}

(6) #include<stdio.h>
int main()
{
  int a,b;
  printf("Enter two number ");
  scanf("%d%d",&a,&b);
  if(a>=b)
    if(a>b)
    printf("Greater Number is %d",a);
    else
     printf("Same number %d",a);
  else
    printf("Greater Number is %d",b);
}

(7) #include<stdio.h>
int main()
{
    int a,b,c,D;
    printf("Enter the value of a,b and c");
    scanf("%d%d%d",&a,&b,&c);
    D=b*b-4*a*c;
    if(D>=0)
       if(D>0)
       printf("Equation is real & distinct");
       else
       printf("Equation is real and equal");
    else
       printf("Equation is imaginary");
    return 0;
}

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

```c
{
    int yr;
    printf("Enter a year");
    scanf("%d",&yr);
    if(yr%100==0)
        if(yr%400==0)
        printf("Leap year");
        else
        printf("Not Leap year");
    else
        if(yr%4==0)
        printf("Leap year");
        else
        printf("Not Leap year");
    return 0;
}
```

(9)
```c
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("Enter three number: ");
    scanf("%d%d%d",&a,&b,&c);
    if(a>b)
        if(a>c)
        printf("Greatest number is %d",a);
    else
        printf("Greatest number is %d",c);
    else
        if(b>c)
        printf("Greatest number is %d",b);
    else
        printf("Greatest number is %d",c);
    return 0;
}
```

(10)
```c
#include<stdio.h>
int main()
{
    float cp,sp,pl;
    printf("Enter the cost price: ");
    scanf("%f",&cp);
    printf("Enter the selling price: ");
    scanf("%f",&sp);
    pl=(sp-cp)/cp*100;
    if(pl>=0)
        printf("Profit percentage is %.2f%%",pl);
    else
        printf("Loss percentage is %.2f%%",pl);
    return 0;
```

```
}

(11) #include<stdio.h>
int main()
{
    int h,e,m,s,san;
    printf("Enter the obtain marks in subject of Hindi,English,Math,Science and sanskrit");
    scanf("%d%d%d%d%d",&h,&e,&m,&s,&san);
    if(h>33 && e>33 && m>33 && s>33 && san>33)
        printf("Pass");
    else
        printf("Fail");
    return 0;
}

(12)  #include<stdio.h>
int main()
{
    char ch;
    printf("Enter a alphabet: ");
    scanf("%c",&ch);
    if(ch>='A' && ch<='Z')
        printf("Alphabet is in upper case");
    if(ch>='a' && ch<='z')
        printf("Alphabet is in lower case");
}

(13)  #include<stdio.h>
int main()
{
    int x;
    printf("Enter a number: ");
    scanf("%d",&x);
    if(x%3==0 && x%2==0)
        printf("Number is divisible by 3 and 2");
    else
        printf("Number is not divisible by 3 and 2");
    return 0;

}

(14)  #include<stdio.h>
int main()
{
    int x;
    printf("Enter a number: ");
    scanf("%d",&x);
    if(x%7==0 || x%3==0)
        printf("Number is divisible by 7 or 3");
    else
        printf("Number is not divisible by 7 or 3");
```

```c
    return 0;
}

(15) #include<stdio.h>
int main()
{
    int x;
    printf("Enter a number: ");
    scanf("%d",&x);
    if(x>0)
        printf("Number is positive");
    else if(x<0)
        printf("Number is negative");
    else
        printf("Number is Zero");
    return 0;
}

(16) #include<stdio.h>
int main()
{
    char ch;
    printf("Enter a character: ");
    scanf("%c",&ch);
    if(ch>='A' && ch<='B')
        printf("Uppercase");
    else if(ch>='a' && ch<='b')
            printf("Lowercase");
    else if(ch>='0' && ch<='9')
            printf("Digit");
    else
            printf("Special character");
    return 0;

}

(17) #include<stdio.h>
int main()
{
    int a,b,c;
    printf("Enter the sides of triangle: ");
    scanf("%d%d%d",&a,&b,&c);
    if(a+b>c && b+c>a && c+a>b)
        printf("Valid triangle");
    else
        printf("Not valid triangle");
    return 0;
}

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

```c
{
    int m;
    printf("Enter the month number: ");
    scanf("%d",&m);
    if(m==1)
        printf("Days in January is 31");
    if(m==2)
        printf("Days in February is 28");
    if(m==3)
        printf("Days in March is 31");
    if(m==4)
        printf("Days in April is 30");
    if(m==5)
        printf("Days in May is 31");
    if(m==6)
        printf("Days in June is 30");
    if(m==7)
        printf("Days in July is 31");
    if(m==8)
        printf("Days in August is 31");
    if(m==9)
        printf("Days in September is 30");
    if(m==10)
        printf("Days in October is 31");
    if(m==11)
        printf("Days in November is 30");
    if(m==12)
        printf("Days in December is 31");
    return 0;
}
```