ASSIGNMENT – 6

1. **Write a program in C to perform addition of two numbers using function.**

```
#include <stdio.h>

   int sum (int a, int b);   //function declaration or function prototype

   int main (void)

   {

      int total,x,y;

            printf("\n\n Function : a simple structure of function :\n");

    printf(“Input two integer values:\t”);

    scanf(“%d%d”,&x,&y);

      total = sum (x, y);//function call.

    //x, y are actual parameter

      printf ("The total is :  %d\n", total);

      return 0;

   }

   int sum (int a, int b) //function definition . a and b are formal Parameter

   {

       int s;

            s=a+b;

      return s; //function returning a value

   }
```

2. **Write a program in C to find the square of any number using the function.**

```
#include <stdio.h>

double square(double s); // function prototype or function declaration

int main()

{

   int num;

   double n;

   printf("Input any number for square : ");

   scanf("%d", &num);

   n = square(num); //calling function . num is actual parameter

   printf("The square of %d is : %.2f\n", num, n);

   return 0;

}

double square(double s) //function definition.number is formal //parameter

{

   return (s * s);

}
```

3. **Write a program in C to convert a decimal number to a binary number using the function.**

```
#include<stdio.h>

long toBin(int dn); // function declaration

int main()

{

   long bno;

   int dno;
```

```
        printf("\n\n  Convert decimal to binary :\n");
    printf(" Input any decimal number : ");
    scanf("%d",&dno);
    bno = toBin(dno); // calling function. dno actual Parameter
    printf("\n The Binary value is : %ld\n\n",bno);
    return 0;
}
long toBin(int dn)     // function definition. dn formal parameter
{
    long bno=0,remainder,f=1;
    while(dn != 0)
    {
        remainder = dn % 2;
        bno = bno + remainder * f;
        f = f * 10;
        dn = dn / 2;
    }
    return bno;
}
```

4. **Write a program in C to check whether a number is a prime number or not using the function.**

```
#include<stdio.h>

int PrimeOrNot(int num);

int main()

{

    int n1,prime;

printf("\n\n Function : check whether a number is prime number or not :\n");

    printf(" Input a positive number : ");

    scanf("%d",&n1);

    prime = PrimeOrNot(n1);

   if(prime==1)

        printf(" The number %d is a prime number.\n",n1);

   else

      printf(" The number %d is not a prime number.\n",n1);

   return 0;

}

int PrimeOrNot(int num)

{

    int i;

    for(i=2; i<num; i++)

    {

         if(num%i==0)

             return 0;

    }

    return 1;

}
```

5. Write a program in C to find the prime numbers between 2 and 100 using the function.

```
#include<stdio.h>
int PrimeOrNot(int);

int main()

{

    int n,prime;

    printf(" Prime Numbers are :\n ");

    for(n=2;n<=100;n++)

    {

    prime = PrimeOrNot(n);

   if(prime==1)

        printf("%d\t",n);

    }

   return 0;

}

int PrimeOrNot(int n1)

{

    int i;

    for(i=2;i<n1;i++)

    {

         if(n1%i==0)

             return 0;

    }

    return 1;

}
```