Assignment - 11

① write a function to calculate L.C.M of two numbers. (TSRS)

Soln →

```
#include<stdio.h>
int L.C.M(int, int);
int main()
{ int a, b;
printf("enter a and b ");
Scanf("%d %d", &a, &b);
printf("L.C.M is %d", L.C.M(a, b));
return 0;
}
int L.C.M(int x, int y)
{ for(int i=1; i<x*y; i++)
{ if(i%x==0 && i%y==0)
break;
}
return i;
}
```

② write a function to calculate H.C.F of two no. (T.S. R.S)

```
#include<stdio.h>
int HCF(int, int);
int main()
{ int a, b;
printf("enter two no");
scanf("%d %d", &a, &b);
printf("HCF is %d", HCF(a,b));
    return 0;
}
int HCF(int x, int y)
{
~~for(int i=1;~~
~~int min = a?b:a~~
int min = a<b ? a : b;
for(i=1; i<=min; i++)
    if(a%i==0 && b%i==0)
        h.c.f = i;
    return h.c.f;
}
```

③ write a function to check whether a given no is prime or not. (TSRS)

Ans

```
#include<stdio.h>
int prime(int);
int main()
{ int n,s;
printf("enter n value");
Scanf("%d",&n);

printf
   s=prime(n);
if(s==0)
printf("prime");
else
printf("Not prime");
 return 0;
}
int prime(int n)
{ for(i=2; i<n; i++)
   if(n%i==0)
     return 0;
   return 1;
}
```

(4) write a function to find the next prime no of a given no. (TSRS)

```
#include <stdio.h>
int prime(int)
int main()
{ int n;
printf("enter n");
scanf("%d", &n);
printf("next prime is %d", prime(n));
return 0;
}
int prime(int n)
int a;
{ for(int i=2; [illegible] i++)
{ [illegible]
for(int j=2; j<n; j++)
{ if(i%j==0)
break;
}
if(i==j)
a=i;
}
return a;
}
```

(5) write a function to print first N prime number. (TSRN)

Ans →

```
#include<stdio.h>
void prime(int n);
int main()
{
    int n;
printf("Enter n");
scanf("%d", &n);
    prime(n);
    return 0;
}
void prime(int n)
{
    int b;
for(i=1; i<=n; i++)
{ for(j=2; j<i; j++)
{
    b = i%j;
    if(b==0)
        break;
}
    if(b!=0)
    printf("%d", i);
}
}
```

(6) write a function to print all prime no b/w two given number. (TSRN)

```
#include <stdio.h>
void prime(int, int);
int main()
{
    int n, y;
    printf("enter n,y value");
    scanf("%d%d", &n, &y);
    prime(n, y);
    return 0;
}
void prime(int n, int m)
{
    for(int i = n; i <= m; i++)
    {
        for(int j = 2; j < i; j++)
        {
            a = i % j; if(a == 0)
                break;
        }
        if(a != 0)
            printf("%d", i);
    }
}
```

(7) write a function to print first N term of fibonacci series. (TSF N)

Ans:

```
#include<stdio.h>
void fib(int n);
int main()
{   int n;
printf("Enter n value");
scanf("%d", &n);
    fib(n);
    return 0;
}
void fib(int n)
{ int a=-1, b=1;
for(i=1; i<=n; i++)
{   t=a+b;
    a=b;
    b=t;
   printf("%d", t);
}
}
```

⑧ write a program in c to find the square of any no. using the function.

```
#include<stdio.h>
void square(int n);
int main()
{ int n;
printf("Enter n");
scanf("%d", &n);
square(n);
return 0;
}
void square(int n)
{ printf("%d", n*n);
}
```

⑨ write a program to find the sum of the series $\frac{1!}{1} + \frac{2!}{2} + \frac{3!}{3} + \frac{4!}{4} + \frac{5!}{5}$ using the function.

```
#include<stdio.h>
int fact(int n)
{ int i, fact=1;
for(i=1; i<n; i++)
    fact= fact*i;
```

```
    return fact;
}
int main()
{
    int i, sum = 0;
    for (i=1; i<=5; i++)
        sum = sum + fact(i) / i;
    ~~return 0;~~
    printf("%d", sum);
    return 0;
}
```