Assignment 11

More on functions in C Language

1. Write a function to calculate LCM of two numbers. (TSRS)

Solve –

#include<stdio.h>

int add(int ,int );

int main()

{

int x,y,e;

printf("Enter the numbers");

scanf("%d%d\n",&x,&y);

e = add(x,y);

printf(" the lcm is %d\n",e);

return 0;

}

int add( int a, int b){

int c,l;

for( l=1; l<a\*b ; l++)

if(l%a==0 && l%b==0)

break ;

return l;

}

Output-

Enter the numbers2

6

the lcm is 6

2. Write a function to calculate HCF of two numbers. (TSRS)

Solve –

#include<stdio.h>

int f1( int , int );

int main()

{

printf("HCF is %d\n", f1( 4,6));

return 0;

}

int f1( int a, int b){

int h;

for(h=a>b?a:b; h>=1; h--){

if(a%h==0 & b%h==0){

break;

}

}

return h;

}

Solve-

HCF is 2

3. Write a function to check whether a given number is Prime or not. (TSRS)

Solve -

#include<stdio.h>

int f1( int n);

int main(){

int n;

printf("Enter the number");

scanf("%d\n",&n);

if(f1(n)>0){

printf(" not prime number");

}

else{

printf(" prime number");

}

return 0;

}

int f1( int n){

int i,flag =0;

for( int i=2; i<n; i++){

if(n%i==0){

flag=1;

break;

}

}

if(flag==1){

return 1;

}

else{

return 0;

}

}

Output-

Enter the number7

prime number

5. Write a function to print first N prime numbers (TSRN) ?

Solve -

#include<stdio.h>

void f1( int n);

int main()

{

int n;

printf(" Enter the number");

scanf("%d\n",&n);

f1(n);

return 0;

}

void f1( int n){

int i;

for( i=2; n>=1; i++){

while(n%i==0){

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

n=n/i;

}

}

}

Output-

Enter the number 36

2

2

3

3

7. Write a function to print first N terms of Fibonacci series (TSRN) ?

Solve –

#include<stdio.h>

void f1( int n);

int main()

{

int n;

printf("Enter the number");

scanf("%d\n",&n);

f1(n);

return 0;

}

void f1(int n){

int a=-1,b=1,c;

for(int i=1; i<=n; i++){

c= a+b;

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

a=b;

b=c;

}

}

Solve-

Enter the number 6

0

1

1

2

3

5

10. Write a program in C to find the sum of the series 1! /1+2!/2+3!/3+4!/4+5!/5 using the

Function ?  
solve -

#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;

}

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

return 0;

}

Output –

274