**ASSIGNMENT 11 SOLUTION**

**Ans 1.**

// C program to find LCM of two numbers

#include <stdio.h>

// Recursive function to return gcd of a and b

int gcd(int a, int b)

{

if (a == 0)

return b;

return gcd(b % a, a);

}

// Function to return LCM of two numbers

int lcm(int a, int b)

{

return (a / gcd(a, b)) \* b;

}

// Driver program to test above function

int main()

{

int a,b;

printf("Enter the two number : ");

scanf("%d %d",&a,&b);

printf("LCM of %d and %d is %d ", a, b, lcm(a, b));

return 0;

}

**Ans 2.**

// C program to find GCD of two numbers

#include <math.h>

#include <stdio.h>

// Function to return gcd of a and b

int gcd(int a, int b)

{

int result = fmin(a, b); // Finding minimum of a nd b

while (result > 0) {

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

break;

}

result--;

}

return result; // return gcd of a nd b

}

// Driver program to test above function

int main()

{

int a , b;

printf("Enter the two number : ");

scanf("%d %d",&a,&b);

printf("GCD of %d and %d is %d ", a, b, gcd(a, b));

return 0;

}

**Ans 3.**

#include <stdio.h>

void main()

{

int num,res=0;

printf("\nENTER A NUMBER: ");

scanf("%d",&num);

res=prime(num);

if(res==0)

printf("\n%d IS A PRIME NUMBER",num);

else

printf("\n%d IS NOT A PRIME NUMBER",num);

}

int prime(int n)

{

int i;

for(i=2;i<=n/2;i++)

{

if(n%i!=0)

continue;

else

return 1;

}

return 0;

}

**Ans 6.**

#include <stdio.h>

int checkPrime(int n);

int main(){

int lowerlimit, upperlimit, i, flag;

// Asking for Input

printf("Enter the lower limit: ");

scanf("%d", &lowerlimit);

printf("Enter the upper limit: ");

scanf("%d", &upperlimit);

printf("Prime Numbers Between %d and %d are: \n", lowerlimit, upperlimit);

for (i = lowerlimit + 1; i < upperlimit; ++i){

flag = checkPrime(i);

if (flag == 1){

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

}

}

return 0;

}

int checkPrime(int n){

int j, flag = 1;

for (j = 2; j <= n / 2; ++j){

if (n % j == 0){

flag = 0;

break;

}

}

return flag;

}

**Ans 7.**

#include<stdio.h>

void fibo(int);

void main()

{

int n;

printf("\nEnter a number to generate fibonacci series for first n terms\n",n);

scanf("%d",&n);

fibo(n);

}

void fibo(int n)

{

int i,c=0;

int a=0;

int b=1;

printf("Fibonacci series for %d terms:-\n",n);

for(i=0;i<n;i++)

{

printf("%d ",c);

a=b;

b=c;

c=a+b;

}

}

**Ans 8.**

#include <stdio.h>

int factorial(int x){

int i, f=1;

if(x==0) return 1;

for (i=x; i>0; i--) f\*=i;

return f;

}

int coeff(int n, int y){

return (factorial(n))/(factorial(y)\*factorial(n-y));

}

int main(){

int n,i,j,space = 0;

printf("Enter the number of lines: ");

scanf("%d",&n);

for (i=0;i<=n;i++){

for(space=n; space>i; space--)

printf(" ");

for(j=0;j<=i;j++)

printf("%4d",coeff(i, j));

printf("\n");

}

return 0;

}

**Ans 9.**

#include<stdio.h>

int func(int);

int main()

{

int no, square;

printf("\n Enter an no : ");

scanf("%d",&no);

square = func(no);

printf("\n Square of no is : %d ", square);

}

int func(int temp)

{

return temp\*temp;

}

**Ans 10.**

#include <stdio.h>

int fact(int);

void main()

{

float sum;

sum=1/fact(1)+2/fact(2)+3/fact(3)+4/fact(4)+5/fact(5);

printf("\n\n Function : find the sum :\n");

printf("----------------------------------------------------------\n");

printf("The sum of the series is : %f\n\n",sum);

}

int fact(int n)

{

int num=0,f=1;

while(num<=n-1)

{

f =f+f\*num;

num++;

}

return f;

}