

Assignment 11 Solution

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

//Solution:

```
#include<stdio.h>

int LcmFunc(int,int);
void main()
{
    int num1,num2;
    printf("Enter two numbers:");
    scanf("%d %d",&num1,&num2);
    int LCM=LcmFunc(num1,num2);
    printf("%d is the LCM of %d and %d ",LCM,num1,num2);
}

int LcmFunc(int no1,int no2)
{
    for(int i=1;i*i;i++)
    {
        if(i%no1==0 && i%no2==0)
        {
            return i;
        }
    }
}
```

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

//Solution:

```
int hcffunc(int,int);
#include<stdio.h>
int main()
{
    int num1,num2;
    printf("Enter a number");
    scanf("%d%d",&num1,&num2);
    int hcf=hcffunc(num1,num2);
    printf("%d is the HCF of %d and %d",hcf,num1,num2);
    return 0;
}
```

```

}

int hcffunc(int no1,int no2)
{
    int hcf=0;
    for(int i=1;i*i;i++)
    {
        if(i%no1==0 && i%no2==0)
        {
            return hcf=(no1*no2)/i;
        }
    }
}

```

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

//Solution:

```

#include<stdio.h>

int primecheck(int);
int main()
{
    int num;
    printf("Enter a number:");
    scanf("%d",&num);
    primecheck(num);
    return 0;
}

int primecheck(int number)
{
    int flag=0;
    for(int i=2;i<number;i++)
    {
        if(number%i==0)
        {
            flag++;
            break;
        }
    }
    if(flag==1)
    {
        return printf("%d is not a prime number",number);
    }
}

```

```

    }
    else
    {
        return printf("%d is a prime number",number);
    }
}

```

Q.4 //Write a function to find the next prime number of a given number. (TSRS)

//Solution:

```

#include<stdio.h>

int nextprime(int);
int main()
{
    int num;
    printf("Enter a number:");
    scanf("%d",&num);
    nextprime(num);
    return 0;
}

int nextprime(int number)
{
    for(int i=number+1;i>number;i++)
    {
        if(i%2!=0)
        {
            return printf("%d is the next prime number",i);
        }
    }
}

```

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

//Solution:

```

#include<stdio.h>

void Nprime(int);
int main()
{

```

```

    int num;
    printf("Enter a number");
    scanf("%d",&num);
    Nprime(num);
    return 0;
}

void Nprime(int number)
{
    int count=0;
    for(int i=2;i<=i*2;i++)
    {
        if(i%2!=0)
        {
            printf("%d ",i);
            count++;
            if(count==number)
            {
                break;
            }
        }
    }
}

```

Q.6//Write a function to print all Prime numbers between two given numbers.

(TSRN)

//Solution:

```

#include<stdio.h>

void primerange(int,int);
int main()
{
    int num1,num2;
    printf("Enter two number:");
    scanf("%d%d",&num1,&num2);
    primerange(num1,num2);
    return 0;
}

void primerange(int no1,int no2)
{

```

```

    for(int i=no1;i<=no2;i++)
    {
        if(i%2!=0)
        {
            printf("%d ",i);
        }
    }
}

```

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

//Solution:

```

#include<stdio.h>

void fibo(int);
int main()
{
    int num;
    printf("Enter a number:");
    scanf("%d",&num);
    fibo(num);
    return 0;
}

void fibo(int number)
{
    int a=0,b=1,c=0,count;
    if(number>1 || number==1)
    {
        printf("1 ");
        count=1;
    }
    for(int i=1;i<i*2;i++)
    {
        if(number==1)
        {
            break;
        }
        c=a+b;
        a=b;
        b=c;
        printf("%d ",c);
        count++;
    }
}

```

```

        if(count==number)
        {
            break;
        }
    }
}

```

Q.8 //Write a function to print PASCAL Triangle. (TSRN)

//Solution:

```
#include<stdio.h>
```

```
int fact(int);
```

```
int comb(int,int);
```

```
int pascalTri(int);
```

```
int main()
```

```
{
```

```
    // int n;
```

```
    // printf("Enter the value of n: ");
```

```
    // scanf("%d",&n);
```

```
    pascalTri(5);
```

```
    return 0;
```

```
}
```

```
int fact(int num)
```

```
{
```

```
    int fact=1;
```

```
    for(int i=1;i<=num;i++)
```

```
    {
```

```
        fact=fact*i;
```

```
    }
```

```
    return fact;
```

```
}
```

```
int comb(int n,int r)
```

```
{
```

```
    return fact(n)/(fact(r)*fact(n-r));
```

```
}
```

```
int pascalTri(int n)
```

```
{
```

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

```

{
    for(int j=1;j<=5;j++)
    {
        if(j<6-i)
        {
            printf("-");
        }
    }
    for(int j=0;j<=i;j++)
    {

        printf("%d ",comb(i,j));
    }
    printf("\n");
}
}

```

Q.9//Write a program in C to find the square of any number using the function.

//Solution:

```

#include<stdio.h>

int Findsqr(int );
int main()
{
    int num;
    printf("Enter a number:");
    scanf("%d",&num);
    Findsqr(num);
    return 0;
}

int Findsqr(int number)
{
    int num=number*number;

    return printf("%d is the square of %d",num,number);
}

```

Q.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.

```
//Solution:
#include<stdio.h>
int fact(int);
int task(int);
int main()
{
    task(5);
    return 0;
}

int fact(int num)
{
    int fact=1;
    for(int i=1;i<=num;i++)
    {
        fact=fact*i;
    }
    return fact;
}

int task(int num)
{
    int task,result=0;
    for(int i=1;i<=num;i++)
    {
        task=fact(i)/i;
        result=result+task;
    }
    return printf("The sum of the series 1!/1+2!/2+3!/3+4!/4+5!/5 is %d",result);
}
```