ASSIGMENT 11

1 #include <stdio.h>

int lcm(int, int );

int main ()

{

int a,b,l;

printf(" enter your number");

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

l=lcm(a,b);

printf ("lcm is %d",l);

return 0;

}

int lcm(int a,int b)

{

int l,ans;

for (l=a>b?a:b;l<=a\*b;l=l+(a>b?a:b))

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

break;

return l;

}

2 #include <stdio.h>

int hcf (int,int);

int main ()

{

int a,b,h;

printf("enter any two number");

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

h=hcf (a,b);

printf("hcf is %d",h);

}

int h;

int hcf(int a,int b)

{

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

{

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

break;

}

return h;

}

3. #include<stdio.h>

int Prime(int a);

int main()

{

int a,P;

printf("enter any numbers: ");

scanf("%d",&a);

P=Prime(a);

if(P==0)

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

else

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

}

int Prime(int a)

{

int i;

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

{

if(a%i!=0)

continue;

else

return 1;

}

return 0;

}

4. #include<stdio.h>

int Prime(int a);

int main()

{

int a,P;

printf("enter any numbers: ");

scanf("%d",&a);

P=Prime(a);

}

int Prime(int a)

{

int i;

a=a+1;

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

{

if(a%i!=0)

continue;

else

a=a+1;

}

printf(" next prime number is %d",a);

return 0;

}

5. #include<stdio.h>

void Prime(int N);

int main()

{

int N;

printf("enter the value of N: ");

scanf("%d",&N);

Prime(N);

}

void Prime(int N)

{

int x=2,i;

while(N)

{

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

if(x%i==0)

break;

if(i==x)

{

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

N--;

}

x++;

}

}

6. #include<stdio.h>

void Prime(int N,int k);

int main()

{

int N,k;

printf("enter the value of N: ");

scanf("%d %d",&N,&k);

Prime(N,k);

}

void Prime(int N,int k)

{

int i,x;

for(x=N+1;x<=k-1;x++)

{

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

if(x%i==0)

break;

if(i==x)

{

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

}

}

}

7. #include<stdio.h>

void fibbo(int N);

int main()

{

int i,N;

printf("enter the value of N: ");

scanf("%d",&N);

fibbo(N);

}

void fibbo(int N)

{

int i,a=-1,b=1,c=0;

for (i=1;i<=N;i++)

{

c=a+b;

printf("%d",c);

a=b;

b=c;

}

}

8. #include<stdio.h>

int fact(int);

int main()

{

int n,r,a,b,c,d;

printf("enter the value of n");

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

a=fact(n);

b=comb(n,r);

c=per(n,r);

d=pascal(n);

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

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

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

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

}

int fact(int n)

{

int i,f=1;

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

f=f\*i;

return(f);

}

int comb(int n,int r)

{

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

}

int per(int n,int r)

{

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

}

void pascal(int n)

{

int i,j;

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

{

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

{

printf("%d",comb(i,j));

}printf("\n");

}

}

9. #include<stdio.h>

void square(int N);

int main()

{

int N;

printf("enter any number: ");

scanf("%d",&N);

square(N);

}

void square(int N)

{

N=N\*N;

printf("%d",N);

}

10. #include<stdio.h>

int fact(int);

int main()

{

int n,a;

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

printf("the sum of the series 1! /1+2!/2+3!/3+4!/4+5!/5 is %d ",a);

}

int fact(int n)

{

int i,f=1;

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

f=f\*i;

return(f);

}

# OR

10. #include<stdio.h>

int fact(int);

int main()

{

int i,sum=0;

for(i=1;i<=5;i++)

{

sum=sum+fact(i)/i;

}

printf("%d",sum);

}

int fact(int n)

{

int i,f=1;

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

f=f\*i;

return(f);

}