## SCHOOL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

ASSIGNMENT # 2

**SUBJECT:**

PROGRAMING

**SUBMITTED TO:**

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**SUBMITTED BY:**

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REG# 41

BIT-10C

1. Use For loop, to make the shapes below;

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#include<iostream.h>

void main()

{

for(int i=0;i<=10;i++)

{

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

{

cout<<" ";

}

cout<<"######";

for(int k=0;k<=(20-(2\*i));k++)

{

cout<<" ";

}

cout<<"######";

cout<<endl;

}

}

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**#include<iostream.h>**

**void main()**

**{**

**for(int i=0;i<=10;i++)**

**{**

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

**{**

**cout<<"\*";**

**}cout<<endl;**

**}**

**for(int k=10;k>=0;k--)**

**{**

**for(int l=0;l<k;l++)**

**{**

**cout<<"\*";**

**}**

**cout<<endl;**

**}**

**}**

1. Write a program to calculate the factorial value of any number entered through the keyboard.

#include<iostream.h>

void main()

{

int a;

int x=1;

cout<<"enter number for factorial=";

cin>>a;

if(a<0) cout<<"Math error"<<endl;

else

{

for(int i=1;i<=a;i++)

{

x=x\*i;

}

cout<<x<<endl;

}

}

1. A positive integer is entered through the keyboard. Write a program to obtain the prime factors of this number.

For example: Prime factor of 24 are 2, 2, 2 and 3 whereas the prime factors of 35 are 5,7.

#include<iostream.h>

main()

{

int a,b;

cout<<"Enter number"<<endl;

cin>>a;

cout<<"Prime factors are: "<<endl;

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

{

b=a%i;

if(b==0)

{

a=a/i;

cout<<i<<endl;

i=1;

}

}

return 0;

}