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***BATCH : B11***

***Data Structure Lab – II [15B17CI271]***

***Lab A Week 6***

***1.***

*CODE:*

*#include<iostream>*

*using namespace std;*

*int product(int n,int m)*

*{*

*if(n<m)*

*return product(m,n);*

*else if(m!=0)*

*return (n+product(n,m-1));*

*else*

*return 0;*

*}*

*int main()*

*{*

*int x=4,y=5;*

*cout<<product(x,y);*

*return 0;*

*}*

*OUTPUT:*

*Graphical user interface, application

Description automatically generated*

***2.***

*CODE:*

*#include<iostream>*

*using namespace std;*

*int lcm(int n,int m)*

*{*

*static int i=1;*

*if(i%n ==0 && i%m==0)*

*{*

*return i;*

*}*

*else*

*{*

*i++;*

*lcm(n,m);*

*return i;*

*}*

*}*

*int main()*

*{*

*int x=4,y=8;*

*cout<<"LCM OF "<<x<<" AND "<<y<<":"<<lcm(x,y);*

*return 0;*

*}*

*OUTPUT:*

*Graphical user interface

Description automatically generated*

***3.***

*CODE:*

*#include<iostream>*

*#include<math.h>*

*using namespace std;*

*int sum(int n)*

*{*

*if(n==1)*

*{*

*return 1;*

*}*

*else*

*{*

*return ((int)pow(n,n)+sum(n-1));*

*}*

*}*

*int main()*

*{*

*int n=4;*

*cout<<sum(n);*

*return 0;*

*}*

*OUTPUT:*

