**COLLEGE OF APPLIED STUDIES AND COMMUNITY SERVICE**

**CSC 1201 First Semester 1436-1437**

**Tut 3**

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**1)** Given positive two integers m and n such that m<n, the greatest common divisor of m and n is the same as the greatest common divisor of m and (n-m). Use this fact to write a definition of the function "greatest\_common\_divisor(...)", which takes two positive integer arguments and returns their greatest common divisor. Test your function in a suitable main program.

**Example**



2) Rewrite the above program using recursive function.

**3) consider the following code:**

int secrete(int one)

{

int i;

int prod=1;

for(i=1;i<=3;i++)

prod=prod\*one;

return prod;

}

What is the output of the following statements:

1. Cout<< secrete(5);
2. Cout<<(2\* secrete(6));

**4)what is the output for the following code**

#include <iostream>

using namespace std;

void fun1(int a){

 a+=10;

 cout<<a<< "\t";

}

void fun2(int &a){

 a+=10;

 cout<<a<< "\t";

}

int main(){

 int x=40;

 cout<<x<< "\t";

 fun2(x);

 cout<<x<< "\t";

 fun1(x);

 cout<<x<< "\t";

 return 0;

}