

# COAL CS FALL 2020

## Lab Assignment # 1

You are required to prepare the ASM file of each task. Submit All ASM files. Please create a RAR file with your roll number containing all tasks.

**Deadline: Thursday, 30<sup>th</sup> December 2021, 11:59 PM**

### Task 1

An Assembly Language Program that find the greatest common divisor [ GCD] of two integers M and N, according to the following algorithm:

1. Divide M by N, getting quotient Q and remainder R.
2. If  $R=0$ , stop. N is the GCD of M and N.
3. If  $R \neq 0$ , replace M by N, N by R, and repeat step-1.

Use INDEC (input decimal number) procedure to enter M and N and OUTDEC (output decimal number) procedure to print the GCD.

### Task 2

Write an Assembly Language Program that prompts the user to enter two string, than it will find that the second string is the substring of first or not.

#### Sample execution:

i)

Enter first string: **Hello World**

Enter second string: **ello**

Yes it is Substring

ii)

Enter first string: **Hello World**

Enter second string: **elloabc**

Not a substring

### Task 3

Write a program that will prompt the user to enter a string then your program encode it and after encode it decode it in original string.

#### Sample execution:

Enter string: **I study in PUCIT**

After Encoding: **O lzrn of HXEOZ**

After Decoding: **I study in PUCIT**

**Note :** Encoded string may be change in your output. it's according to your **XLAT table**