COMSATS University Islamabad, Lahore Campus
Department of Electrical and Computer Engineering

Assignment-1 – FALL 2022

Course Title:	Microprocessor System and Interfacing	Course Code:		EEE 342	Credit Hours:	4(3,1)
Course Instructor:	Nesruminallah		Program Name:		BCE	
Semester:	FA22	Batch:	Section: FA20-BEE		Semester:	5th
Submission Date:			**Maximum Marks:**			**20**
Name:			**Registration Number:**			

Important Instructions / Guidelines:
- Please add this page on your assignment
- Do your own work, **PLAGARISM** will be graded as **ZERO**
- Submit the assignment before the start of lecture.
- Only handwritten assignments will be accepted.
- **No late submission is allowed.**

Question 1:   **[10][CLO1-C4-PLO3]**

Analyze the following assembly language code using the knowledge of programmer model, addressing mode and assembly language programming concepts. You are required to provide the following values after analysis:

1. Show the value of updated registers after execution of each instruction?
2. Considering the line number 9, what will be the physical address at which value of 'AX' is stored?

Note: The value of Data segment for the code is 0ABCDH and '3' is already stored at 0ABCD:0500H.

```
1.   XOR CX, CX
2.   ANDBX, CX
3.   MOV CL, [0500]
4.   MOV AL, 1H
5.   Here:
6.   MUL CL
7.   ADD BX, CX
8.   Loop Here
9.   MOV [0600], AX
10.  RCL BX, 16
```

Question 2:   **[10][CLO1-C5-PLO3]**

Write an assembly language programme that can perform the following tasks:
- A. Move the value X in the AX register, whereas X is your registration number (one, two or three digit).
- B. Separate the digits of value stored in AX register and place into BL, BH and CL registers respectively.

__End of Assignment__