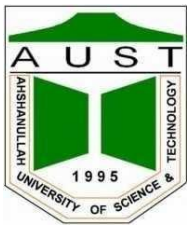
Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

SPRING 2020



Lab Assignment
Microprocessors lab
CSE 3108

Assignment No: 01
Date of submission: 17/01/2021

Submitted By:

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Id: 17.02.04.006
Section: A

Set Number :21
Question 01: Write an assembly code to display BC2 in Seven Segment Display.

Assembly Code:

```
S SEGMENT PARA PUBLIC 'CODE'
ASSUME CS: S
ORG 1000H

START:
        ; Control register turn on
        MOV AL, 80H
        OUT 1FH, AL
SSD:
        ; Display B
        MOV AL, 80H
        OUT 19H, AL
        ; For Delay
        MOV CX, FFFFH
        L0: LOOP L0
        ; Display C
        MOV AL, C6H
        OUT 19H, AL
        ; For Delay
        MOV CX, FFFFH
        L1: LOOP L1
        ; Display 2
        MOV AL, A4H
        OUT 19H, AL
        ; For Delay
        MOV CX, FFFFH
        L2: LOOP L2
        JMP SSD
S ENDS
END START
```

Question 02 : R1(ON)-R1(OFF)-(Y+G(ON))-R2(ON)

Assembly Code:

```
L SEGMENT PARA PUBLIC 'CODE'
ASSUME CS: L
ORG 1000H

START:
        ; Control register turn on
        MOV AL, 80H
        OUT 1FH, AL
        ; Segment address forcefully off
        MOV AL, FFH
        OUT 19H, AL

LED:
        ; R1 LED ON
        MOV AL, 01H
        OUT 1BH, AL
        ; For Delay
        MOV CX, FFFFH
        LR1: LOOP LR1
        ; R1 LED OFF
        MOV AL, 00H
        OUT 1BH, AL
        ; For Delay
        MOV CX, FFFFH
        LOR1: LOOP LOR1
        ; R1 LED OFF and Y&G LED ON
        MOV AL,06H
        OUT 1BH, AL
        ; For Delay
        MOV CX, FFFFH
        YG: LOOP YG
```

```
        ; R2, Y and G LED ON
        MOV AL, 0EH
        OUT 1BH, AL
        ; For Delay
        MOV CX, FFFFH
        LR2YG: LOOP LR2YG
JMP LED
L ENDS
END START
```