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FOURTH SEMESTER **B.Tech. (EP)**

Make-Up Mid Semester Examination *May-2020*

EP206 MICROPROCESSORS AND INTERFACING

Time: 45 Min ***Max. Marks : 20***

Note : Attempt all questions. All questions carry equal marks. Assume suitable missing data, if any.

Q.1. How many times LOOP1 will be executed in the following program? What will be the contents of BL after the execution?

```
MOV BL, 00H
MOV CL, 0BH
LOOP1: ADD BL, 02H
DEC CL
JNZ LOOP1
```
[4]

Q.2. Identify the addressing modes for the following instructions:

1) CALL 7583H
2) MOV BX, [4172H]
3) JMP [12345]
4) MOV AX, [SI + BX +04] [4]

Q.3. Write an assembly language program in 8086 to generate the given set of numbers in increasing order. [4]

Q.4. Consider that 4 LEDs are connected to port C_L of 8255. Address of Port C is 82H and control register is 83H. Write a program to flash 4 LEDs 10 times. Assume persistence of vision to be 0.1 sec. Consider the operating frequency of 8255 to be 2.5MHz. [4]

Q.5. Write a program based on PIC-16F877 using indirect addressing to fill 16 registers such that register reg1 contains number 1, reg2 the number 2 and so on. [4]

END