Total No. of Questions :8]                    [Total No. of Printed Pages :2

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## CS-601

### B.E. VI Semester

Examination, June 2017

### Microprocessor & Interfacing

*Time : Three Hours*

***Maximum Marks : 70***

*Note:* i)  Attempt any five questions.

ii)  All questions carry equal marks.

1.  Discuss the serial data transmission standards and their specifications.

2.  Distinguish between the memory mapped I/O and I/O mapped I/O.

3.  Calculate delay of following routine:

        MVI B, 10H
    LOOP2: MVI C, FFH
    LOOP1: DCR C
        JNZ LOOP1
        DCR B
        JNZ LOOP2

4.  With timing diagram, explain the memory read operation in 8085 microprocessor.

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5.  Given that BX=2500H, SI= 5000H, displacement=1000H and IP=2000H. Determine the effective address for the following addressing modes:
    a)  Immediate
    b)  Register using SI
    c)  Direct
    d)  Base
    e)  Index
    f)  Base Index

6.  Draw typical 8086 maximum mode configuration and explain the function of signals used in maximum mode.

7.  What is DMA data transfer scheme? Discuss the function of 8257.

8.  Answer any four of the following:
    a)  Define instruction cycle, machine cycle and T-state.
    b)  List the different instruction set used in 8085 microprocessor with example.
    c)  Write different addressing modes used in 8086 microprocessor.
    d)  Draw the interfacing of memory to an 8086 microprocessor.
    e)  What is the significance of the Special Function Registers in microcontroller.
    f)  Discuss the various machine cycles of an 8051 controller.

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