



Reg. No. : .....

Name : .....

**Fifth Semester B.Tech. Degree Examination, November 2013  
(2008 Scheme)**

**08.505 : MICROPROCESSORS AND INTERFACING (R)**

Time : 3 Hours

Max. Marks : 100

**PART – A**



Answer **all** questions. **Each** question carries **4** marks.

1. Draw the timing diagram and explain how data byte is transferred from memory to MPU.
2. Explain how the port address of a memory mapped I/O can be recognized.
3. Explain IN and OUT instructions for 8085 microprocessor.
4. Explain the basic circuit of a DAC and define the terms resolution and settling time.
5. Explain the memory banks in 8086 microprocessor with neat schematics.
6. Explain the different segment registers in 8086 microprocessor.
7. Explain the use of control signals  $\bar{s}_2$ ,  $\bar{s}_1$  and  $\bar{s}_0$  in maximum mode of operation in 8086 microprocessor.
8. How is the INTR pin enabled in the strobed input mode of operation of 8255 ?
9. How many wait states are required to interface the 8279 to 8086 microprocessor operating at 8 MHz dock ? Give reasons.
10. What is a memory to memory DMA transfer ?

**(10×4=40 Marks)**

**PART – B**

Answer **any one** question from **each** Module. **Each** question carries **20** marks.

**Module – I**

11. Draw the timing diagram and explain the execution of the instructions

i) MVI A, 32H

ii) IN 01H

12. Explain the interfacing of a 8 bit ADC (0801) with 8085 with neat schematics and timing diagram.

**Module – II**

13. Draw the internal block diagram of 8086 and explain. Compare it with 8085 micro processor.

14. a) Write a program in 8086 assembly language to find the average of the even numbers in a group of 'n' numbers.

b) Write a note on interrupts in 8086 processor.

**Module – III**

15. Draw the internal block diagram of 8254 and explain the interfacing of 8254 with 8086.

16. Draw the internal block diagram of 8237 and explain the interfacing of 8237 with 8086.

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