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Roll No

EX - 502

B.E. V Semester

Examination, December 2013

Microprocessor and Microcontroller

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any two parts from each question.
ii) All questions carry equal marks.

1. a) Draw and Discuss the internal block diagram of 8086. Explain register organisation in 8086.
b) Draw and Describe the read and write cycle timing diagram of 8086 in maximum mode?
c) Mention the salient features of 80286, 386 and 486.

2. a) Explain different JUMP instructions in 8086.
b) What types of addressings are available in 8086? Explain each with suitable examples.
c) With relevant examples. Explain stack and stack structural of 8086.

3. a) Draw the block diagram of 8254 and explain the function of each block including the control words and generation of delay of 1msec with suitable waveforms.

- b) Explain the operation of PPI in mode I. Draw the timing diagram for IN & OUT both.
 - c) Draw and explain diagram of 8257 and explain the process of DMA with control words.
4. a) Explain JUMPs of 8051.
b) Describe register sets of 8051.
c) Discuss interrupts of 8051. Also explain about priorities.
5. a) Illustrate in brief with flow diagram, the thyristor firing circuit using 8051 microcontroller.
b) Explain serial communication with 8051.
c) Discuss various timers/counters functions giving suitable diagrams.
