Code No: B4302, D4302 **NR/R09**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II Semester Examinations, March/April 2011
MICRO PROCESSORS & MICRO CONTROLLERS
(POWR ELECTRONICS)

Time: 3hours **Max. Marks: 60**

Answer any five questions
All questions carry equal marks
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1. a. The following are the contests of various Registers of 8086.
   $AX - 3000H$
   $BX - 2000H$
   $SI - 3500H$
   $DI - 3000H$
   $2000 : 3500 - 50H$
   $BP - 5000H$
   i) MOV CL, [BX + DI + 500H] ii) INC SI
   iii) MOV [DI + 0700], AH iv) MOV [BP+DI+700], BH.

   b. With suitable examples explain the string instruction of 8086. [12]

2. a. Briefly explain the function of the below pins of 8086.
   i) LOCK ii) Test iii) BHE / S7 iv) READY
   b. With a neat diagram explain the timing of write operation in maximum mode. [12]

3. a. Write a program to find the sum of the no's preset in memory location address starting from 70000H to 70050H when ever there is a carry increment the content of 72000H memory location by1 and store the Result in 75000H.
   b. How to set the trap flag in 8086? Write a subroutine to set the trap flag. [12]

4. a. Draw and Explain the programming modes of 32 bit Micro Processor.
   b. Explain the passing mechanism of 80386. [12]

5. Interface 8086 with 32 KB of RAM at an address from 75000H and 32KB of EPROM from 80000H and 16KB of ROM from 88000H and the available sizes of memory are 4KB of RAM, 16KB of EPROM and 8KB of ROM. [12]

6. a. Explain the OCW's & ICW's of 8259.
   b. Draw and Interface the 8253 with 8086? Explain. [12]

7. a. Explain about various special function Registers of 8051.
   b. Explain the interrupt structure in 8051. [12]

8. a. Explain the various modes of operation performed by timer/counter block in 8051.
   b. Explain the Addressing modes of 8051 with suitable examples. [12]

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