PVP 12

Code: **EEPC1T1**

I M.Tech-I Semester-Regular Examinations-April 2013

MICROPROCESSORS AND MICROCONTROLLERS
(POWER SYSTEM CONTROL & AUTOMATION)

Duration: 3 hours Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1 (a) Describe with a neat diagram the action taken by 8086 when INTR pin is activated. 7 M

(b) Write an assembly language program in 8086 to search the largest data in an array. 7 M

2 (a) Discuss the various addressing modes of 8086 microprocessor. 7 M

(b) Explain the following assembler directives used in 8086

(i) ASSUME
(ii) EQU
(iii) DW,
(iv) PUBLIC 7 M

3 (a) Explain the importance & functioning of

(i) ALE pin (ii) Mov Ax, 004CH
(iii) Mov Ax, [Bx] (iv) RESET
(v) DT/R' (vi) TEST 9 M

(b) Differentiate MIN&MAX mode. 5 M

4 (a) Explain with neat diagram, memory segmentation in 8086 microprocessor. 7 M

(b) Draw & explain Read cycle of 8086 7 M

5 (a) With the help of block diagram explain the operation of USART (8251A) 7 M

(b) Discuss the salient features of 8255 – programmable interrupt controller. 7 M

6 Explain BSR & I/O mode word formats of the 8255 PPI.Write a BSR control word to set bits PC7 & PC3 & reset them after 10 msec. Assume that a delay Subroutine is available. Address for control word register = 83H. 14 M

7 Name SFRs required to program timers of 8051 ? Explain in detail the different modes of operations of these timers 14 M

8 (a) With a suitable block diagram, explain the architecture of 8051 microcontroller. 8 M

(b) What is the power saving modes in 8051? 6 M