

**B.Tech. Degree V Semester (Supplementary) Examination,
July 2009**

**EE 505 MICROPROCESSOR BASED SYSTEMS
(2006 Scheme)**

Time: 3 Hours

Maximum Marks: 100

PART – A

(Answer **ALL** questions)
(All questions carry **EQUAL** marks)

(8 x 5 = 40)

- I
- a) Explain with examples the four addressing modes of 8085.
 - b) Define stack and explain its use in a 8085 processor. Briefly explain the instructions used to access stack.
 - c) With a neat diagram explain a 8253 programmable timer.
 - d) Explain the pin diagram of a 8257 programmable Interrupt Controller.
 - e) Explain the role of segment descriptor registers in 80386.
 - f) Briefly explain the special features of Pentium processors.
 - g) Draw the architecture of an 8051 micro controller.
 - h) Explain how memory organization is done in an 8051 micro controller.

PART – B

- II
- a) List the five interrupts of 8085 in the order of their priority and explain the rate of each of them in the processors operation. (7)
 - b) Draw the timing diagram showing all relevant signals for the instruction IN 84 H. (8)
- OR**
- III
- a) Differentiate between minimum mode and maximum modes of operation in an 8086. (7)
 - b) Draw and briefly explain the Internal architecture of an 8086 processor. (8)
- IV
- Draw a neat diagram and explain the 8255 programmable peripheral interface. Explain the three modes of operation. (15)
- OR**
- V
- a) Describe the features of 8251 communication interface. (7)
 - b) Explain the architecture and function of the keyboard display interface. (8)
- VI
- Explain the real and protected modes of operation of a 80386 processor. (15)
- OR**
- VII
- a) Explain the 386 task switching. (7)
 - b) Explain how memory paging is done in 80386. (8)
- VIII
- Explain the function of 8051 micro controller. Briefly explain all the special function Registers of 8051. (15)
- OR**
- IX
- Explain the following terms related to 8051 Micro controller
- i) T MOD register
 - ii) T CON Timer register
 - iii) S CON register
- (15)

