

B. Tech Degree IV Semester Examination April 2011

CS/EC/EB/EI 402 MICROPROCESSORS (2006 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART – A

(Answer ALL questions)

(8 x 5 = 40)

- I. (a) Write a short note on flag registers in 8085.
 (b) Write the usages of 8085 pins
 (i) HOLD
 (ii) SID
 (c) Differentiate between the op-codes DAA and DAD.
 (d) Write a short note on various branch instructions and their usage in 8085.
 (e) Differentiate between Instruction cycle, Machine cycle and T State.
 (f) Draw and explain the Timing Diagram of op-code execution LXI B, 1200h.
 (g) Write a short note on various ports available in 8255.
 (h) Write a note on operation of peripheral chip 8251.

PART – B

(4 x 15 = 60)

- II. (a) Describe the concept of data bus multiplexing and demultiplexing in 8085 with the help of figures. (7)
 (b) Describe the Register organizations of 8085 in detail. (8)
- OR**
- III. Draw and explain the internal architecture of microprocessor 8085. (15)
- IV. (a) Explain various addressing modes available in 8085 with the help of examples. (7)
 (b) Write an assembly language program to find the largest among a set of numbers stored from 4001 onwards. The number of elements in the set is available in location address 4000. Store the largest number in the following location. (8)
- OR**
- V. (a) Write an assembly language program in 8085 to find the sum of numbers stored from memory address 2001 onwards and number of elements in the set is available in location address 2000. Store the sum in BCD in the following location. (8)
 (b) Write a short note on various op-codes and their usage, available in 8085 for realising serial communication? (7)
- VI. (a) Explain the various operations involved in servicing an interrupt. (10)
 (b) How can mask or unmask the interrupts? (5)
- OR**
- VII. Describe various types of Interrupts and their organization in 8085. (15)
- VIII. (a) Draw the architecture and explain the operation of peripheral chip 8279. (8)
 (b) Describe various operational modes of peripheral chip 8253. (7)
- OR**
- IX. (a) Describe various operating modes and control words of peripheral chip 8255. (7)
 (b) Write a short note on concept of Memory Interfacing. (8)