Microprocessor & Assembly language programming
(CSE-208, Dec-2005)

Note: Section A is compulsory. Attempt any four questions from Section-B and any two from Section-C.

Section-A

1. a) Synchronous buses are faster or asynchronous buses. Explain with reasons.
   b) What is an instruction cycle? Explain.
   c) Explain the function of following 8085µP instructions with examples.
      (i) SHLD   (ii) LDAX
   d) Explain the function of instruction queue in 8086 microprocessor.
   e) What are vectored interrupts? Explain with suitable example.
   f) List the important features of Motorola 68000 microprocessors.
   g) Explain the STACK operation in 8085 microprocessor.
   h) What is an Emulator? Explain its uses in the system design.
   i) Discuss the function of following signals of 8085.
      (i) HOLD   (ii) HLDA
   j) Discuss fetch and execute operation.

Section-B

2. What are various status flags provided in 8085? Discuss their role.
3. What is DMA data transfer scheme? Discuss the function of DMA data controller 8257.
4. Write an assembly language program for 8-bit multiplication, product being 0f 16 bits.
5. Describe in flow chart the interfacing of 8085 microprocessor with matrix keyboard and also write the assembly language program to implement the function.
6. What is PROM programming? Explain with suitable examples.

Section-C

7. Describe interfacing of 7 segment display with its decoder / driver to an 8085 microprocessor. Can alphabets be displayed by this scheme?
8. (a) Write an assembly language program using 8085 microprocessor instruction set to arrange N numbers in ascending order.
   (b) What are single chip micro-computers? Explain with example.
9. (a) write an assembly language program to interface 8085 microprocessor with stepper motor.
   (b) What are different addressing modes of 8085? Explain with examples.