Roll No ....

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MEMT - 105

M.E./M.Tech., I Semester
Examination, June 2014

Micro Controller System Design

Time : Three Hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks.

1. a) Assume that the accumulator contains data byte $(82)_H$ and the instruction MOV C, A $[(4F)_H$] is fetched. List the steps in decoding and executing the instruction.

   b) Give the comparison of 8085 and the 8080A micro processors.

2. a) What is the purpose of memory segmentation? What do you understand by off-set or effective address?

   b) With the help of internal architecture of 8086 microprocessor. Explain the types of flags registers involved in 8086 microprocessor.

3. a) Briefly explain the serial port operation in 8085.

   b) Explain memory mapping of 8085 with diagram.

4. a) Define the term recursion in detail.

   b) Explain the term integrated software development environment in brief.

5. Design a system using Atmel 89c51/52 and PIC micro controllers. Also discuss their special features.

6. a) Discuss the application of microcontroller in data acquisition in detail.

   b) Describe the embedded controllers in detail.

7. a) Give the comparison of DSP processor with normal microprocessor.

   b) Explain the DSP processor architecture in detail and give its applications.

8. Write short notes on any two of the following: -

   i) Instruction set and programming of 80851.

   ii) Program and data memory

   iii) Debugging techniques

   iv) Applications of micro controller.

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