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Roll No.....

MEDC-102

M.E./M.Tech. I Semester
Examination, November 2018

Micro Controller System Design

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Draw and discuss the internal block diagram of 8086 microprocessor.

   b) Discuss in brief the instruction set of 8086 microprocessor.

2. a) With suitable example, explain how I/O devices are connected using memory mapped I/O and peripheral I/O in 8085?

   b) Explain the functions and operating modes of timer in 8051. Explain the functional pin diagram of 8051 microcontroller.

3. a) Comment on Register set of 8051 and interrupts of 8051 microcontroller.

   b) What do you know about Motorola 68 HCO and 68 HC 11 microcontrollers, explain in detail?

4. a) What is software development modular approach? Explain in detail with suitable diagram.

   b) Explain the terms Recursion and debugging in detail.

5. a) What are the applications of microcontrollers in data acquisition techniques? Explain any one of them.

   b) What do you mean by object oriented interfacing and programming? Explain using suitable example.

6. a) What do you know about ATMEL89C51/S2 microcontrollers? Write their applications.

   b) Write a program in assembly language in 8086 to generate a delay of 10 ms.

7. a) Write and explain embedded controllers.

   b) Explain PIC microcontrollers in detail.

8. Write short notes on any two of the followings:

   a) DSP Processor Architecture

   b) Sample design using TI-DSP

   c) Flags of 8085

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PTO