Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

MEPE-202

M.E./M.Tech. II Semester

Examination, December 2017

Advanced Microprocessor and Application

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Write the difference between microprocessor and microcomputer. 7
   b) Classify the instruction sets of 8085 microprocessor with examples. 7

2. a) Explain the register organization of 8086 microprocessor. 7
   b) Explain the addressing modes of 8086 microprocessor with examples. 7

3. a) Explain the architecture of programmable peripheral interface chip 8255 in details. 7
   b) Write the C.W.R. format of 8253 and explain the modes of operation in detail. 7

4. a) Interface DAC 0800 with microprocessor 8086 and write an assembly language program for generation of triangular wave. Assume that microprocessor operating with 8MHz frequency and amplitude of triangular wave should be 5 volt. 7

   b) Explain the block diagram of ADC0808/0809 and also write the steps for programming. 7

5. a) Explain the architecture of 8051 microcontroller with function of each block. 7
   b) Explain the various family of Intel 8-bit microcontroller with example. 7

6. a) What is Bus controller? Write the important of Bus controller in maximum mode configuration of 8086 microprocessor. 7
   b) Write an assembly language program in 8086 microprocessor for finding the biggest no. in array. Assume that length of array is stored in memory location and data bytes are also stored in memory. 7

7. How the microprocessor used for data acquisition system? Explain in detail with its industrial applications. 14

8. Write short notes on any two: 14
   a) Multiprocessor system
   b) Programmable Interrupt Controller (8259)
   c) Timer function of 8051 microcontroller

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488