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

Roll No .....

MEPE - 202

M.E./M.Tech., II Semester

Examination, December 2016

Advanced Microprocessor And Application

Time : Three Hours

Maximum Marks : 70

Note : i) This paper contain total eight questions.
ii) Attempt any five questions.
iii) All questions carry equal marks.

1. a) Draw internal block diagram of 8085 microprocessor. 7
   b) Write a program for 8085 microprocessor to add eight 8-bit numbers stored in eight consecutive memory locations. 7

2. a) Explain bus interface unit and execution unit of 8086 microprocessor using suitable block diagram. 7
   b) Illustrate with examples, the calculations of effective addresses in different addressing modes of 8086 microprocessor. 7

3. a) Explain handshake mode of 8255 in both cases, input and output ports. 7
   b) Describe BSR (Bit Set Reset) mode and applications of BSR mode of 8255. 7

4. a) What is DAC and how R/2R network is used to convert digital signal to analog signal? 7
   b) Illustrate interfacing of an 8-bit DAC with 8085 microprocessor. 7

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5. a) Define : TCON, TMOD and SCON for 8051 microcontroller. 7
   b) Draw organization of internal RAM of 8051 microcontroller and explain stack operation of 8051 microcontroller. 7

6. a) What is interrupt priority and how it can modify in 8051 microcontroller? 7
   b) Explain interrupt mechanism of 16 bit microprocessor. Using suitable flow chart. 7

7. a) Draw a timing diagram for write memory operation in 8-bit or 16-bit microprocessor. 7
   b) Write a program in assemble level language for 8086 microprocessor to add two 32-bit numbers. 7

8. Write short note on any two : 14
   a) Serial communication interface (8251)
   b) Traffic light controller using microprocessor/ microcontroller
   c) Water level controller using microprocessor/ microcontroller

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