

Roll No.

2206

B. E. 5th Sem. (ECE)

Examination – December, 2013

MICROPROCESSORS AND INTER-FACING

'E' Scheme

Paper : EE-309-E

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complain in this regard, will be entertained after examination.

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

1. (a) Explain the working of 8085 microprocessor with the help of block diagram and also explain the function of each block. 10
- (b) What are the different addressing modes are there in 8085 explain. 10
2. (a) Describe the purpose BIU and EU in 8086. 5
- (b) Describe the purpose of following pins in 8086. 10
 - (i) BHE and A_0
 - (ii) NMI, INTR, INTA

(iii) S2, S1, S0

(iv) TEST

(c) Describe in brief how physical address is computed in 8086? 5

3. (a) Explain flag manipulation instructions in detail. 10

(b) Write the purpose of following assembly directives: 10

(i) dd (ii) db (iii) dw (iv) model (v) dt

4. Explain the working of 8255 in different modes. Also explain how the contents of control register are interpreted in BSR and input/output mode. 20

5. (a) Explain the working of 8237 DMA controller with the help of block diagram and also explain the function of each block. 15

(b) Write down the Pin Description of 8237 DMA controller. 5

6. (a) With the Help of neat and clean block diagram explain the working of 8259 PIC and explain how it helps in managing multiple numbers of interrupts. 10

(b) With the Help of neat and clean block diagram explain the working of 8254 programmable interval timer. 10

7. (a) Describe the use of SIM instruction in 8085. 10

- (b) Describe difference between 8085 and 8086 Microprocessors. 10

8. Write short on any *two* : $10 \times 2 = 20$

(a) Comparison between maximum mode and minimum mode of 8086.

(b) Trap, over flow and direction flag in 8086

(c) Memory mapped I/O V/s. I/O mapped I/O