

Roll No.
Printed Pages : 2

8404

BT-4 / M-14

MICROPROCESSORS AND INTERFACING

Paper-ECE-216-E

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt five questions in all, selecting at least one question from each unit.

Unit-I

1. (a) Draw a diagram showing the architecture of 8085 microprocessor and label it. 15
(b) What are the differences between static and dynamic RAM? 5
2. (a) Write an assembly language program to sort ten numbers, in ascending order, stored in the memory of 8085. 12
(b) How is memory interfaced with 8085? 8

Unit-II

3. (a) Explain the working of EU and BIU of 8086 microprocessor. 12
(b) How is 8086 memory segmented and physical address obtained? Explain using example. 8
4. (a) Write an assembly language program for 8086 to add ten numbers stored in memory. 10
(b) List the shift and rotate instructions of 8086 and explain these giving examples. 10

8404

[Turn over

(2)

Unit-III

5. (a) Draw the architecture of 8255 ppi chip and explain the working of each of the subparts. 15
(b) What are the various ports available in 8255? Discuss in brief. 5
6. (a) How is A/D interfaced with 8085? Draw a suitable diagram to show this and explain its working. 12
(b) Write an assembly language program to send 5 bytes of data as output from one of the ports of 8255. What will be the control word? 8

Unit-IV

7. Draw the structure of 8237 DMA controller and explain its working. How is it interfaced to 8085? 20
8. (a) What are interrupts? What role do these play in the working of a microprocessor? 8
(b) Explain the working of 8259 programmable interrupt controller. 12

8404