(Pages: 2)



FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE APRIL 2014

(2009 Scheme)

AI 09 404—INTRODUCTION TO MICROPROCESSORS

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

- 1. What is the function of address bus, data bus and control bus of 8085 processor.
- 2. Using logical operations write a program to find the presence of a BCD number 3 in the given data.
- 3. What is the purpose of Directives in 8086 Assembler?
- 4. What are requirements to be met while interfacing I/O devices to microprocessor?
- 5. What is the function of instruction LDAX B and X LAT in 8085?

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions.

- 6. Explain the Interrupt structure of 8085.
- 7. Write a program to show how many numbers are greater than 20 in a given array of 10 numbers.
- 8. What is the need for memory segmentation? Explain its features.
- 9. Explain any two modes of 8253 timer?
- 10. Explain the working of Analog to Digital converter.
- 11. Explain about I/O mapped I/O and memory mapped I/O.

 $(4 \times 5 = 20 \text{ marks})$

Part C

12. Explain about working of 8085 microprocessor.

Or

- 13. (a) Explain the addressing modes of 8085.
 - (b) Differentiate between microprocessor and microcomputer.

(7 + 3 = 10 marks)

14. Write a program to count the number of even numbers and odd numbers in a given array of 20 numbers.

Or

15. Write a program to arrange N numbers in descending order.

Turn over

2 C 61593

16. Describe the block diagram of 8086 processor.

Or

- 17. Discuss briefly the various addressing modes of 8086.
- 18. Discuss the working of 8279.

Or .

19. Describe the operation of 8255.

 $(4 \times 10 = 40 \text{ marks})$