

C 26897

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Name .....

Reg. No. ....



**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
MAY 2012**

AI 09 404—INTRODUCTION TO MICROPROCESSORS

Time : Three Hours

Maximum : 70 Marks

**Part A**

*Answer all questions.*

1. What are low level language and high level language ?
2. Write a program to turn on the air conditioner if switch  $S_6$  of the input port O/H is on. Ignore all other switches of the input port even if someone attempts to turn on other appliances.
3. If CS = 123 A and IP = 341B, determine the physical address of the next instruction.
4. What is Interrupt on terminal count ?
5. Write the control word to program 8255 in model with port B as i/p port.

(5 × 2 = 10 marks)

**Part B**

*Answer any five questions.*

6. Explain the function of the signals RESETOUT, HOLD, READY and TRAP.
7. Write a program to count the numbers of 1's in the given data.
8. Differentiate between the minimum and maximum mode of 8086.
9. With an example how I/O devices and memory devices are interfaced with 8085.
10. Write a program to convert a Binary number to ASCII.
11. Explain about ICW and OCW of 8259.

(4 × 5 = 20 marks)

**Part C**

12. (a) Discuss the characteristics of Large, Medium and Microcomputers. (7 marks)
- (b) Explain about Instruction format and flag register of 8085. (3 marks)

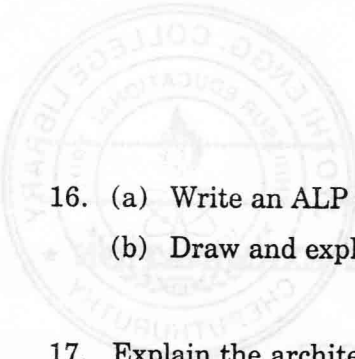
*Or*

13. Describe the block diagram of 8085.
14. Write a program to arrange 10 numbers in ascending order.

*Or*

15. Write a program convert a BCD number to seven-segment display.

**Turn over**



- 16. (a) Write an ALP to find the average of N numbers. (5 marks)
- (b) Draw and explain the timing diagram of a memory read cycle. (5 marks)

Or

- 17. Explain the architecture of 8086.
- 18. Discuss in detail about 8257 DMA controller.

Or

- 19. Describe the features and operation of 8279.

[4 × 10 = 40 marks]

