

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

THIRD SEMESTER – APRIL 2010

CS 3875 / PH 3902 - MICROPROCESSOR AND MICRO CONTROLLER

Date & Time: 03/05/2010 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

PART – A

10 x 2 = 20 marks

Answer all

1. What is direct addressing mode?
2. What is 0 in addressing mode? Give an example.
3. Define: Assembly Language.
4. What is the use of records in assembler directives?
5. Define the term Segmentation.
6. What is Semaphore?
7. What is the purpose of buffer memory?
8. Write any 4 features in 8259 interrupt programmable controller.
9. List out any 4 interrupts of 8051 Microcontroller.
10. What are the register banks in 8051 Microcontroller?

PART – B

5 x 8 = 40 marks

Answer all

- 11.a).What is a CPU?What does it contain? Briefly explain each component
(Or)
b) Write a short note on Arithmetic instructions.
- 12.a) Write short notes on Assembly Process.
(Or)
b) Explain the following a) Data Definition and Storage Allocation b) Structures
13. a) How to do the Scheduling? Explain with an example.
(Or)
b) Write short notes on Virtual Memory.
- 14.a)Explain the salient features of 8259
(Or)
b) Explain about the concept of programmed I/O
15. a) List out any 4 instruction set using in Microcontroller 8051 with example.
(Or)
b).Write a short note on the following
i) Stack Pointer ii) Program Counter iii) Accumulator iv) Data Pointer

Answer any Two

16. a). With a neat diagram explain the architecture of 8086 Microprocessor
b). Explain in detail about the translation of Assembler instructions

17. a). Discuss in detail about the Memory Management in 8086
b). Explain in detail about the Block transfer and DMA.

18. a) Explain the architecture of Microcontroller with suitable block diagram
b) Discuss the various addressing modes of 8086 Microprocessor.
