

B. E./B. Tech. (Sixth Semester) EXAMINATION, 2008

MICROPROCESSORS

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt any five questions.

1. (i) At any time what is the maximum number of memory that on 8086 processor can use ? 2 each
- (ii) Explain why CS cannot be a destination ?
- (iii) What is sequential memory addressing ? Give its advantages.
- (iv) What is Pipelining ? How is 8086 μ p architecture designed to incorporate pipelining ?
- (v) Give the difference between TEST and AND instructions.
- (vi) The stack segment register contains 2424 H while the SP register contains 2121 H. What is the physical address of the start of stack ?
- (vii) Which base register is used to address the data in the stack segment ?
- (viii) Differentiate the memory and I/O.
- (ix) Define microcontroller.
- (x) Write down the 16 bit registers of microcontroller 8051.

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[2]

2. (a) What are the different features of numeric processors 8087 ? 5
(b) What are the different internal registers in 8086 μ p ? 5
(c) Write down the program using 8253 in mode-3 as a square wave generator. 10
3. (a) Write down the program to check whether a given string is a palindrome or not and the string is stored in the data segment. 14
(b) What are the different SFRs in 8051 microcontroller ? 6
4. (a) Explain minimum and maximum operating mode of 8086 μ p. 6
(b) What are different assembler directives ? Explain their working in brief. 6
(c) Explain the interfacing of memory chips using 74 LS 138. 8
5. (a) Write an assembly language program for 8086 μ p to arrange a string of bytes in ascending order. 10
(b) Explain different serial data transmission modes of 8051 microcontroller. 10
6. Write technical notes on any *four* of the following : 5 each
(a) DMA Controller
(b) BIU and EU of 8086 μ p
(c) Physical and Logical memory
(d) Difference between 8086 μ p and 8088 μ p
(e) Segmented registers in 8086 μ p
(f) Interrupts in 8086 μ p

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600