

Total No of Questions: [12]

SEAT NO. :

[Total No. of Pages :2]

S.E. 2008 (INFORMATION TECHNOLOGY)
PROCESSOR ARCHITECTURE AND INTERFACING
(Semester - II)

Time: 3 Hours

Max. Marks : 100

Instructions to the candidates:

- 1) Answer Q.1 or Q.2 , Q.3 or Q.4 ,Q.5 or Q.6 from Section I and Q.7 or Q.8 , Q.9 or Q.10 , Q.11 or Q.12 from section II.
- 2) Answers to the two sections should be written in separate answer books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right side indicate full marks.
- 5) Assume Suitable data if necessary

SECTION I

- Q1) a) What is Machine Status Word (MSW) of 80386? Draw its format. [8]
b) Differentiate between [10]
1) Memory mapped I/O and I/O mapped I/O.
2) 8086 and 80386

OR

- Q2) a) What is the function of BE0 to BE3 Signal? Explain Memory Bank of 80386 processor [8]
b) With the help of block diagram explain the architecture of 80386 processor [10]
- Q3) a) What are the components of MS-DOS? Explain in detail [8]
b) Explain any four addressing modes of 80386 by showing physical address generation with the help of example. [8]

OR

- Q4) a) Draw and explain control word format for I/O and BSR mode of 8255. [8]
b) Compare and contrast : [8]
i) Procedure and Macro
ii) .COM and .EXE
- Q5) a) Draw and explain how 80386 Processor translates Logical address into Linear address. [8]
b) Write down the steps to switch from RM to PM. [8]

OR

- Q6) a) Draw and explain how 80386 Processor translates Linear address into Physical address. [8]
b) What is TLB? Why it is necessary? Explain with the help of diagram. [8]

SECTION II

- Q7) a) What is multitasking? Explain the process of multitasking with the help of TSS. [10]
b) What is virtual mode? Explain in detail. [8]

OR

- Q8) a) Which are the different types of Exceptions in 80386? Explain with suitable examples. [8]
b) How interrupts are handled in protected mode of 80386 Processor? Explain with the help of neat diagram. [10]

- Q9) a) Explain Data Memory organization of 8051 Microcontroller in detail. [8]
b) Describe different sources of Interrupt and how these interrupts are handled in 8051 Microcontroller. [8]

OR

- Q10) a) Describe register set of 8051 Microcontroller. [6]
b) Explain different types addressing modes of 8051 Microcontroller with example. [10]
- Q11) a) Describe features of Texas MSP 430. [6]
b) Explain in detail Serial port of 8051 Microcontroller with the help of SCON. [10]

OR

- Q12) Explain various modes of Timer of 8051 Microcontroller. [16]