

Code.No: 07A6EC07

R07

SET-1

III B.TECH – II SEM EXAMINATIONS, DECEMBER - 2010
MICROPROCESSORS AND INTERFACING
(COMMON TO ECE, EIE, BME, ETM)

Time: 3hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a. Explain different addressing modes of 8086 Microprocessor.
- b. Explain the memory mapped I/O and I/O mapped I/O for either 8085 or 8086 Microprocessor. [8+8]
- 2.a. Explain the Branch instruction and Conditional Branch instruction.
- b. Write a sorting program for Ten number in the ascending order. [8+8]
- 3.a. Explain the Architecture of 8086 in minimum mode and Maximum mode.
- b. Explain the static RAM and EPROM interfacing to 8086 Micro Processor. [8+8]
- 4.a. What are the different modes of 8255?
- b. Explain the 8086 interfacing to 8255 in mode 0. [8+8]
- 5.a. What is an interrupt structure in 8086 Micro Processor?
- b. Explain the interrupt sequence in 8086 Micro Processor. [8+8]
- 6.a. Explain Synchronous and Asynchronous data transfer with an examples.
- b. Explain RS232C and Explain TTL to RS232C Conversion. [8+8]
- 7.a. Explain the protected virtual address mode of 80286.
- b. Show how a 80286 system is divided into task, levels and segments. [8+8]
- 8.a. Explain the Architecture of 8051 Micro controller.
- b. Explain different modes for Timer operation in 8051. [8+8]

-----o0o-----

Code.No: 07A6EC07

R07

SET-2

III B.TECH – II SEM EXAMINATIONS, DECEMBER - 2010
MICROPROCESSORS AND INTERFACING
(COMMON TO ECE, EIE, BME, ETM)

Time: 3hours

Max.Marks:80

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a. Explain the Architecture of 8086 Microprocessor.
- b. Explain the Segmentation method in 8086 Microprocessor. What are the different registers used for this purpose? [8+8]

- 2.a. Write a program to move the contents of a block of memory to another area in Memory.
- b. Which of the following are valid and invalid assembler language instructions for 8086? Explain each instruction. State the error for each invalid instruction. Assume that all identifiers are variables and are associated with words. [8+8]

MOV BP, AL
 MOVI IX, 10
 MOV CS, AX
 XLAT

3. Explain the need for DMA and DMA transfer method. [16]

- 4.a. Explain the mode 1 operation of 8255.
- b. Explain the block diagram of 8279. [8+8]

- 5.a. What are the Software and Hardware interrupts in 8086 Micro Processor?
- b. Explain control word register for 8259 and Architecture of 8259. [8+8]

- 6.a. Explain what is the purpose of RS232C in Serial Communication.
- b. Explain how a serial data transfer takes place with a simple program. [8+8]

- 7.a. Explain the Register set of 80286.
- b. Explain the salient features of 80386. [8+8]

- 8.a. What are the special function registers for 8051?
- b. Explain Internal and external memories for 8051. [8+8]

-----o0o-----

Code.No: 07A6EC07

R07

SET-3

III B.TECH – II SEM EXAMINATIONS, DECEMBER - 2010
MICROPROCESSORS AND INTERFACING
(COMMON TO ECE, EIE, BME, ETM)

Time: 3 hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a. Show the Flags format for 8085 and 8086 Microprocessors.
- b. Explain what are the advantages of using Segmentation Registers in 8086 Microprocessor. Also explain how the effective address is generated. [8+8]
2. Give a program sequence that compares the first 10 bytes beginning at CHAR_1 with the first 10 bytes beginning at CHAR_2 and branches to MATCH. If they are equal, but otherwise continues in sequence. [16]
3. Explain 8257 DMA interface to 8086 Micro Processor. [16]
- 4.a. Explain the Keyboard and Display interface method.
- b. Explain A/D Converter interface to 8086 Micro Processor. [8+8]
- 5.a. Explain various DOS and BIOS interrupts.
- b. Draw the block diagram for multiple 8259A based interrupt system. [8+8]
6. Explain in detail 8251 USART Architecture and Interfacing. [16]
- 7.a. Explain Real and protected mode segmentation.
- b. Explain the Paging in 80286. [8+8]
- 8.a. Explain the meaning of TMOD register for Timer for 8051.
- b. Explain the meaning of each bit of SCON register for 8051. [8+8]

-----o0o-----

Code.No: 07A6EC07

R07

SET-4

III B.TECH – II SEM EXAMINATIONS, DECEMBER - 2010
MICROPROCESSORS AND INTERFACING
(COMMON TO ECE, EIE, BME, ETM)

Time: 3hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a. Explain the Assembler directives, procedures and macros.
- b. Explain the different addressing modes of 8086 Microprocessor. [8+8]
- 2.a. Write program sequences that will perform the following operations on two Digit packed BCD number [16]
 - a. $A=B+(C-6)$
 - b. $A=(X+W) - (Z - (U*5))$
- 3.a. Explain 8237 interfacing to 8086 Micro Processor.
- b. Explain SRAM, DRAM, EPROM, FLASH memories and their differences. [8+8]
- 4.a. Explain the Stepper motor interfaces to 8086 and write small program to rotate Stepper motor in Clock wise and Anti Clock wise direction.
- b. Explain D/A Conversion interface to 8086 Micro Processor. [8+8]
- 5.a. Explain ISR in nested interrupts for 8086 with an example.
- b. Explain the significance of Vector interrupt table. [8+8]
- 6.a. Explain high speed serial communication standards.
- b. Brief about USB. Explain the functionality of various lines on USB. Explain the memory type present in USB. [8+8]
- 7.a. What are the salient features of a Pentium machine?
- b. What is difference between CISC and RISC processor? Explain the Architecture of any RISC processor. [8+8]
- 8.a. Explain the meaning of TCON registers for Timer for 8051.
- b. Explain the meaning of each bit of IP and IE registers. [8+8]

-----o0o-----