

III B.Tech II Semester Supplementary Examinations, April/May 2005
MICROPROCESSORS & APPLICATIONS
(Electrical & Electronic Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions
All Questions carry equal marks

1. Draw the functional diagram of 8086 microprocessor that includes BIU and EU. Briefly explain about the functions of four segment registers in BIU.
2. (a) Explain the following instructions of 8085 and 8086 microprocessors.
 - i. XTHL
 - ii. JPE
 - iii. LAHF
 - iv. STOSW(b) What are the various types of hardware interrupts in 8086 microprocessor and mention the priority among them.
3. (a) Write 8086 microprocessor ALP for multiplying two 16-bit binary numbers to get a 32-bit result.
(b) Describe how CALL and RET instructions of 8085 are executed.
4. Write 8086 procedure for implementing bubble sort. Also write the main program.
5. 2KB ROM chips and 4KB RAM chips are available. It is required to provide 18KB memory with 6KB ROM and 12KB RAM to 8085 microprocessor. Design the memory interface and show the schematic of the interface.
6. Describe the use of 8253 programmable interval timer interfacing chip.
7. Discuss the use of 8259 programmable interrupt controller chip.
8. Write short notes on the following:
 - (a) 8085 flags
 - (b) key debounce
 - (c) DAC
 - (d) 8251 USART
