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# CS - 601

## B.E. VI Semester

Examination, June 2013

## Microprocessor and Interfacing

***Time : Three Hours***

***Maximum Marks : 100*** ***Minimum pass Marks: 35***



***Note:*** Attempt all questions. All questions carry equal marks.

1. a) Draw and discuss the internal block diagram of 8086? 10
   b) What are the interrupts available in 8086? Give the interrupt vector table of 8086 microprocessor? 10

OR

2. a) Draw the register organisation of 8086 and explain typical application of each register. 10
   b) Compare the basic features of 8086 and 80286 micro processor. 10

3. a) What do you mean by addressing modes? What are the different addressing modes supported by 8086? 10
   b) What do you mean by a Macro? What are the differences between a macro and a Subroutine? 10

OR

4. a) State and explain the different instruction format of 8086. 10
   b) Differentiate between :- 10
      i) Modular programming and structural programming
      ii) Top-down design and Bottom up design.





5. a) Write a program in assembly language for 8086 to get the sum of two 8 bit numbers. Draw the flowchart of program also. 10
   b) Discuss the advantages of micro controller based systems over microprocessor based systems. 10

OR

6. a) Draw and discuss the internal architecture of 8051. 10
   b) Discuss the communication between 8086 and 8087? 10



7. a) What is the advantage of DMA controlled data transfer over interrupt driven or program controlled data transfer? Why are DMA controlled data transfer faster? 10
   b) How do you interface 8259 A with 8086 in maximum mode? Draw the schematic. 10

OR

8. a) Explain the different commands of 8279 in brief. 10
   b) Write short notes :
      i) ISA Bus ii) Universal serial Bus (USB)
      iii) Accelerated graphics port. 10

9. a) What are the different types of ROM. Explain in detail? 10
   b) What are the types of shift register? Explain the function of each type? 10

OR

10. Write short notes on: 20
    i) SRAM & DRAM ii) EEPROM
    iii) Cache Memory iv) Magnetic Memory

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