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Roll No. ....

## **CS-601(N)**

**B. E. (Sixth Semester) EXAMINATION, June, 2011**  
(Computer Science & Engg. Branch)

### **MICROPROCESSOR AND INTERFACING**

[CS-601(N)]

*Time : Three Hours*

*Maximum Marks : 100*

*Minimum Pass Marks : 35*

**Note :** Attempt any *five* questions. Attempt *one* question from each Unit. All questions carry equal marks.

#### **Unit-I**

1. (a) Draw the functional block diagram of 8086 microprocessor. Explain each block in brief. 10  
(b) Compare the features of intel 80286, 80386, 80486 and Pentium. 10

*Or*

2. (a) Explain various addressing modes of 8086 microprocessor with suitable examples. 10  
(b) Discuss arithmetic and logic instructions. 10

#### **Unit-II**

3. (a) Describe the general instruction format of 8086 in brief. 10

**P. T. O.**

- (b) What is MACRO ? Explain nested MACRO with example. 10

Or

4. (a) Explain the structured programming. Also discuss its basic structure. 10  
(b) Explain subroutine call and returns with example. 10

**Unit – III**

5. (a) What is Microcontroller ? Explain the architecture of 8051 microcontroller. 10  
(b) Write a short note on co-processor. 10

Or

6. (a) What is single chip microcomputer ? Give IC number of some microcontroller and discuss their applications. 10  
(b) Draw and explain the functional block diagram of intel 8748 microcontroller. 10

**Unit – IV**

7. (a) Draw and explain the expanded block diagram of transmitter and receiver section of 8251 USART. 10  
(b) Explain in detail various bus standards and compare them. 10

Or

8. (a) Draw and discuss the architecture of 8089 I/O processor. 10  
(b) Explain the function of the following in 8259 with block diagram : 10  
(i) Priority resolver  
(ii) Cascade buffer/comparator

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**Unit – V**

9. (a) Explain various types of semiconductor memory. 10  
(b) Write a short note on cache memory. 10

*Or*

10. Explain the following memories : 20  
(i) Main memory  
(ii) Secondary memory  
(iii) Cache memory  
(iv) Magnetic memory