No. of Printed Pages : 2

BICS-012

01009

B.Tech. IN - COMPUTER SCIENCE AND ENGINEERING

Term-End Examination

December, 2011

BICS-012 : MICROPROCESSOR

Time : 3 hours *Maximum Marks : 70*

*Note : Attempt **any seven** questions.*

1. With the help of a neat diagram, explain the architecture of 8086 microprocessor ? **10**

2. Describe the various types of addressing modes in 8086. **10**

3. (a) Write a 8086 Program to find out the number of even and odd number from a given series of 16 - bit hexadecimal numbers.
   (b) If memory is having 12 address lines and 8 data lines, then find out the number of registers and word length ? **2x5=10**

4. (a) Write an 8086 assembly language program to transfer a block of 256 bytes of data from off set 1000 H in DS to offset 2000 H in DS.
   (b) What do you mean by non-maskable and maskable interrupt ? **2x5=10**

5. (a) Show the bit wise flag register of 8086 and explain the function of each flag with an example. **2x5=10**

(b) Mention the steps for interrupt handling.

6. With neat sketch explain the functional block diagram of 8259 A Programmable interrupt controller. **10**

7. Draw and discuss internal architecture of USART 8251. **10**

8. (a) How many 8259 can be interconnected in cascaded mode ? Show their cascading structure. **2x5=10**

(b) Explain the Automatic EOI and specific rotation in relation to 8259 A.

9. Draw the internal architecture of 8255. Also draw the control word format of BSR mode. **10**

10. Write short notes on ***any two*** : **2x5=10**

(a) Pentium Processor.

(b) Physical and virtual memory.

(c) Comparison between 8086 and 8088.