C 40959

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# FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION APRIL 2013

IT/CS 09 406/PT CS 09 405—MICROPROCESSOR BASED DESIGN

(2009 Scheme)

[Regular/Supplementary/Improvement]

Time : Three Hours                                                                        Maximum : 70 Marks

## Part A

*Answer all questions.*

1. What is the function of clock generator ?

2. Differentiate between minimum and maximum mode of operation of 8086.

3. What is the function of the instruction LEA ?

4. What are the read and write cycle timing of DRAM ?

5. What is the function of ISR ?

(5 × 2 = 10 marks)

## Part B

*Answer any four questions.*

1. Explain about MODEM.

2. Write a program to find the factorial of a given number.

3. Draw and explain the EPROM interface of 8086 system.

4. How a data is transferred from one device to another using VESABM ?

5. How a keyboard in interfacing in 8086 system ?

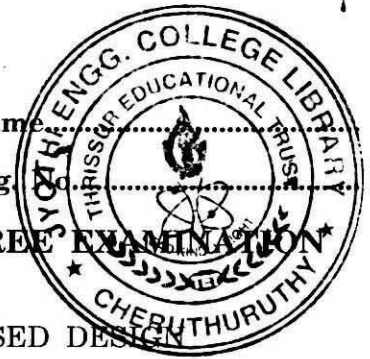6. Explain about OCW of 8259.

(4 × 5 = 20 marks)

## Part C

1. Discuss in detail about operating system and parallel interface of a PC system.

*Or*

2. Describe the features of 8086, 80286, 80486 and pentium systems.

Turn over

3. What is the function of the following instructions ?

   LOOPE/LOOPZ, STI, LOCK, SCAS and RCR.

   *Or*

4. Write a program to arrange N numbers in descending order.

5. Explain the memory interface of 80486 system.

   *Or*

6. Describe the various modes of operation of timer.

7. Explain the different modes of operation of DMA controller.

   *Or*

8. Explain the working of ISA Bus.

                                                                    (4 × 10 = 40 marks)