Name.

Reg. 1

FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE MAY 2012

CS/IT 09 406/PTCS 09 405-MICROPROCESSORS BASED DE

(2009 admissions)

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

- 1. What is the function of BIOS?
- 2. What are interrupt hooks?
- 3. What are the features of DRAM?
- 4. Under what situations DMA transfer is preferred over normal data transfer scheme?
- 5. Where PCI bus is used?

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions.

- 1. What is a modem? Describe its function.
- 2. Write a program to find the average of three numbers.
- 3. With a figure explain how DAC interface works.
- 4. Write an ISR to find the maximum number in a given series of N numbers, When a key 'A' is pressed?
- 5. Write a program to generate a delay of 2 m-sec.
- 6. With the help of a circuit explain about CMOS RAM and real clock.

 $(4 \times 5 = 20 \text{ marks})$

Part C

Answer all questions.

1. Explain the components present inside the motherboard of an PC.

Or

- 2. Explain the maximum mode of operation of 8086.
- 3. Discuss in detail about addressing modes.

Or

- 4. What is the function of the following instructions LAHF, LES, XLAT, AAA and SAR.
- 5. Describe the memory decoding circuit of 8086 processor.

Or

- 6. Explain about the working of 8253.
- 7. Describe any one mode of operation of 8259 A.

Or

8. Discuss the operation of ISA BUS.

 $(4 \times 10 = 40 \text{ marks})$