



Printed Pages : 3

TEE - 404

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2054

Roll No.

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B. Tech.

(SEM. IV) EXAMINATION, 2006-07

MICROPROCESSOR

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions.

1 Attempt any **two** parts of the following : **10×2=20**

- (a) Draw the pin-diagram of 8085 micro processor and give the name of signals associated with timing and control circuit and explain.
- (b) What is bus? What are different types of buses supported by 8085? How the processor sends and receives information from memory and I/O devices? Explain.
- (c) Explain the role and working of latches and transceivers (data buffer) in minimum mode of 8086 system.

2 Attempt any **four** parts of the following : **5×4=20**

- (a) Explain the following instructions with suitable example. Also indicate the flag condition.
 - (i) AAA
 - (ii) DAA

- (iii) MUL
- (iv) RCR
- (v) MOVSW

- (b) Describe the memory organization and I/O addressing capability of 8086 microprocessor in brief.
- (c) Explain the following directives in brief :
ASSUME, EXTRN, END P
- (d) Give the name of program control instructions and explain each one.
- (e) Write a program in assembly language to sum a series of 16 bit numbers using SI register.
- (f) What are the flags in 8086? Discuss.

3 Attempt any **two** parts of the following : **10×2=20**

- (a) Give the signal description of 8086 used in min. mode and max. mode. Explain.
- (b) How does a microprocessor differentiate the signal between address and data? Explain.
- (c) Draw 'Read' and 'Write' cycle timing diagram of 8086.

4 Attempt any **two** parts of the following : **10×2=20**

- (a) Explain the various types of interrupt of 8086 and classify them on the basis of highest and lowest priority.
- (b) Explain the different mode of operation of 8255 PPI.
- (c) Draw the architecture of 8253, programmable timer/counter, and explain each block.

5 Attempt any **two** parts of the following : **10×2=20**

- (a) Explain the following mode of operation of 8259 :
- (i) Poll Command
 - (ii) Cascade mode
- (b) Explain the priorities of DMA request. How is the request served by DMA controller ?
- (c) What are different types of register associated with 32 bit processor?
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