Printed Pages : 3   **TEE – 404**

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

PAPER ID : 2054   Roll No.

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.

V–2054]   2   [Contd...

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?