

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- VIth SEMESTER-EXAMINATION – MAY- 2012****Subject code: 160805****Date: 19/05/2012****Subject Name: Advanced Microprocessors****Time: 10:30 am – 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Write down difference between 8085 Microprocessor & 8086 Microprocessor. **07**
 (b) Explain minimum mode configuration of 8086 Microprocessor. **07**

- Q.2** (a) Explain the internal architecture of 8086 microprocessor. **07**
 (b) Write different addressing modes of 8086 microprocessor & explain any of three in detail. **07**

OR

- (b) Show and explain the activities on 8086 buses during simple read and write operation. **07**

- Q.3** (a) Draw the interrupt pointer table of 8086 microprocessor & explain type-0 and type-2 interrupt in detail. **07**
 (b) Define the following assembler directives (i) EQU **07**
 (ii) DW (iii) ENDP (iv) EXTRN (v) ENDS (vi) ASSUME (vii) DD

OR

- Q.3** (a) Define the following instructions of 8086 microprocessor (i) CBW (ii) CLD **07**
 (iii) DAA (iv) CMPSB (v) IDIV (vi) JNA (vii) LEA
 (b) Explain loosely coupled multiprocessor system. **07**

- Q.4** (a) Write a program that square any number from 00 to FFh placed in AL and place the answer in AX. **07**
 (b) Write a program to sort all the bytes from 0000 to 000Fh in ascending order. **07**

OR

- Q.4** (a) Write a program and draw a flow chart to find the number A3h which is located somewhere in memory between DS:1000h and DS:1400h. find the first offset address that contains A3h and put the offset address in register BX. **07**
 (b) Write a following programs. **07**
 (i) Store the number 1234h in absolute memory address 60000h.
 (ii) Interchange the content of DI and SI

- Q.5** (a) Explain interfacing of 8086 microprocessor with co-processor. **07**
 (b) Briefly describe Macros. **07**

OR

- Q.5** (a) Explain closely coupled multiprocessor system. **07**
 (b) (i) Describe the type-3 and type-4 interrupt. **07**
 (ii) Write down difference between 8086 microprocessor & 8088 microprocessor.
