

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – WINTER 2013****Subject Code: 160805****Date: 04-12-2013****Subject Name: Advance Microprocessor****Time: 02:30 pm to 05:00 pm****Total Marks: 70****Instructions:**

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

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|-----|-----|--|----|
| Q.1 | (a) | Explain the internal architecture of 8086 microprocessor. | 07 |
| | (b) | Draw pin configuration of 8086 microprocessor and describe all pins. | 07 |
| Q.2 | (a) | Explain Minimum mode configuration of 8086 Microprocessor along with block diagram. | 07 |
| | (b) | Describe memory interfacing of 8086 microprocessor. | 07 |
| | | OR | |
| | (b) | Briefly explain with example various addressing modes of 8086 microprocessor. | 07 |
| Q.3 | (a) | Explain following instruction of 8086 with example.
XLAT, LEA, SAHF, CBW, MOVSB, LOOP, SCASB | 07 |
| | (b) | Explain various types of Interrupt of 8086 microprocessor. | 07 |
| | | OR | |
| Q.3 | (a) | Explain following assembler directives with example.
DB, DUP, PTR, ASSUME, DW, DD, OFFSET, EQU | 07 |
| | (b) | Explain Interrupt Response of 8086 microprocessor. | 07 |
| Q.4 | (a) | Write a program to find the average of five numbers which are stored in memory. | 07 |
| | (b) | Write a program which adds a profit of 15Rs to each element in a COST array and puts the result in a PRICES array. | 07 |
| | | OR | |
| Q.4 | (a) | Write a program to copy a string from the location TEST_MESS to the location NEW_LOCK. | 07 |
| | (b) | Write a program to find the largest number among the series which are stored in the memory. | 07 |
| Q.5 | (a) | Draw the block diagram of Coprocessor and explain each block | 07 |
| | (b) | Describe loosely coupled and closely coupled multiprocessor system. | 07 |
| | | OR | |
| Q.5 | (a) | Write short notes on | |
| | | i. Nested Macros | 03 |
| | | ii. Memory segmentation | 04 |
| | (b) | Explain general purpose registers of 8086 in detail. | 07 |
