



C09-EC-404

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2016
DECE—FOURTH SEMESTER EXAMINATION
MICROPROCESSORS**

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions** : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. State memory hierarchy in a digital computer.
2. Define opcode and operand.
3. List the types of interrupts of 8086.
4. Write any six features of Intel 8086 microprocessor.
5. Write the importance of instruction pointer and stack pointer.
6. List any three control transfer (branch) instructions of 8086.
7. List any three logic instructions of 8086.
8. Write an assembly language program to perform 2's complement of an 8-bit number stored in the 1100H. Store the result in the location 1101H.

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9. List any six ^{*} features of 80386.
10. Write any three differences between 80386 and 80486.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. (a) Draw the block diagram of digital computer and briefly explain the function of each block. 6
(b) Draw the block diagram of accumulator-based CPU. 4
12. (a) Explain the fixed point and floating point representations with examples and compare them. 7
(b) Define micro and macro operations. 3
13. (a) Write any five differences between 8-bit and 16-bit microprocessors. 5
(b) Explain the concept of pipeline processing. 5
14. Describe the maximum and minimum mode of operation of 8086.
15. Explain the addressing modes of 8086 with examples.
16. (a) Describe any five assembler directives. 5
(b) List any two assembly language development tools and describe them. 5
17. Explain the architecture of 80486 with neat diagram.
18. Explain the architecture of 80286 with neat diagram.
