



C09-EC-404

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2017
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. Define opcode and operand.
2. Define macrooperation and microoperation.
3. Write any six features of Intel 8086 microprocessor.
4. Write the need for interrupts in microprocessors.
5. List the general purpose registers of 8086 and state their uses.
6. List the addressing modes of 8086.
7. List any six logic instructions of 8086.

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8. Explain the ^{*} call instruction.
9. Write any three differences between 80486 and Pentium.
10. List any six features of 80286.

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.

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|---|---|
| 11. (a) Explain associative memory. | 6 |
| (b) State memory hierarchy. | 4 |
| 12. Draw the block diagram of accumulator-based CPU and explain the function of each unit. | |
| 13. (a) Write any five differences between 8-bit and 16-bit microprocessors. | 5 |
| (b) Explain the concept of parallel processing. | 5 |
| 14. Describe the maximum and minimum modes of operation of 8086. | |
| 15. (a) Describe any five assembler directives. | 5 |
| (b) List any two assembly language development tools and describe them. | 5 |
| 16. Write an assembly language program to find the largest of 'N' 8-bit numbers and stored from SOURCE. Store the largest number at RESULT. | |
| 17. Explain the architecture of 80486 with neat diagram. | |
| 18. Explain the architecture of 80386 with neat diagram. | |
