



C09-EC-404

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2018
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 micro-operation and macro-operation.
2. What is instruction format? Mention the fields present in instruction format.
3. State the need for bus control logic.
4. What is meant by parallel processing?
5. Write the importance of instruction pointer.
6. What is immediate addressing mode of 8086 microprocessor? Give one example.
7. Classify the instruction set of 8086 microprocessor.

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8. Write one ^{*} example each for data transfer, arithmetic and logic instructions.
9. List the features of 80286 microprocessor.
10. Compare between RISC and CISC processors.

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. Draw the block diagram of accumulator-based CPU and explain the function of each block.
 12. (a) Explain memory interleaving. 5
 (b) Explain virtual memory organization. 5
 13. Draw and explain internal architecture of 8086 processor.
 14. (a) Explain the generation of 20-bit physical address in 8086 processor with an example. 5
 (b) Explain about instruction queue of 8086 processor. 5
 15. List the assembly language tools and explain them.
 16. (a) What is subroutine? Explain its importance. 5
 (b) Write the differences between conditional and unconditional branch instructions. 5
 17. Explain the operating modes of 80386.
 18. Explain instruction level parallelism.
