C09–EC–**404**

3470

BOARD DIPLOMA EXAMINATION, (C–09)
OCT/NOV—2015
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. What is the need of memory interleaving?

2. Define micro and macro operation.

3. Explain the instruction queue 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 data transfer instructions of 8086.

7. List any three assembly language development tools.

8. List any three assembler directives.

9. Write any three features of RISC processors.

10. List any six features of 80286.

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PART—B 10×5=50

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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 function of each block.

(b) Draw the block diagram of accumulator-based CPU.

12. Explain zero-address, one-address, two-address and three-address instructions with one example each.

13. *(a)* Explain the generation of 20-bit physical address in 8086 with an example. 6

(b) What is interrupt? Explain interrupt response of 8086. 4

14. *(a)* Explain the flags of 8086. 6

(b) Explain the concept of parallel processing. 4

15. List the addressing modes of 8086 and explain them with examples.

16. Write an assembly language program to move a block of 'N' 8-bit number at location SOURCE to another memory area starting at DEST.

17. Explain pipelining and instruction level parallelism.

18. Write any five differences among 80286, 80386, 80486 and Pentium.

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