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C09–EC–**404**

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BOARD DIPLOMA EXAMINATION, (C–09)

OCT/NOV—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. Explain floating-point representation with example.

3. State the need of memory segmentation in Intel 8086.

4. List the general purpose registers of 8086 and state their uses.

5. List the flags of 8086 microprocessor.

6. List any three control transfer (branch) instructions of 8086.

7. List any six addressing modes 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.

9. Compare between RISC and CISC processors.

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.

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

12. Draw the block diagram of accumulator based CPU. Explain the function of each unit.

13. Explain the concepts of sequential processing and parallel processing.

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

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

15. Explain the sequence of subroutine or procedure programming.

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 Pentium with neat diagram.

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