

C09-EC-404

3470

BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV-2016 DECE-FOURTH SEMESTER EXAMINATION

MICROPROCESSORS

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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.

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- **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

 $10 \times 5 = 50$

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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.** 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.
 - (b) What is interrupt? Explain interrupt response of 8086.
- **15.** Explain the sequence of subroutine or procedure programming.
- **16.** (a) Describe any five assembler directives.
 - (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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