C16–EC–**403**

**BOARD DIPLOMA EXAMINATION, (C–16)**
**OCT/NOV—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.　What is the function of ALE pin in 8085 microprocessor?

2.　Define fetch cycle and execution cycle.

3.　State the function of instruction printer in 8086 microprocesser.

4.　State the need of bus control logic in 8086.

5.　List any three data transfer instructions of 8086.

6.　Explain register addressing mode of 8086 briefly.

7.　List any six assembler directives of 8086.

8.　State the need of subroutine.

9.　What is pipeline processing?

10.　List the operating modes of 80386.

**PART–B**                                                    10×5=50

*Instructions :* (1) Answer *any* **five** questions.
  (2) Each questions carries **ten** marks.
  (3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

**11.** Draw and explain the functional block diagram of 8085.

**12.** (a) Explain the different flags of 8086 and mention their uses.
  (b) Compare 8-bit and 16-bit microprocessors.

**13.** (a) State the purpose of printer and index registers in 8086 microprocessor.
  (b) Explain the generation of 20-bit physical address in 8086 with an example.

**14.** Explain any four string manipulation instructions of 8086.

**15.** Explain any five arithmetic instructions of 8086.

**16.** Write an assembly langauge program of 8086 to find the length of a given string.

**17.** Compare 80286, 80386, 80486 and pentium processors.

**18.** *(a)* Compare RISC and CISC.

  *(b)* Decribe instruction level parallelism.

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