

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

**ADVANCED MICROPROCESSOR**

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I . Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Specify AX, BX registers in 8086 micro-processor.
2. Mention pipelining in 8086 micro-processor.
3. Write an example of Register indirect Addressing mode.
4. Write advantages of PVAM of 80386.
5. Differentiate Core and Hyper threading.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

II . Answer any *five* of the following questions. Each question carries 6 marks.

1. Draw write timing diagram of 8086 in minimum mode.
2. Discuss memory segmentation of 8086.
3. Specify any three addressing modes of 8086 with example.
4. Describe type 0, type 1, type 2 interrupts in 8086.
5. Draw and discuss general purpose registers of 80386.
6. Discuss real address mode and virtual 8086 address mode of 80386.
7. Compare core i3, i5, i7.

(5 × 6 = 30)

## PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

## UNIT — I

- III (a) Draw the pin diagram of 8086. 10  
 (b) Discuss  $AD_0AD_{15}$ , ALE, MN/MX, BHE. 5

OR

- IV (a) Draw and discuss minimum mode configuration of 8086. 8  
 (b) Discuss Register organisation of 8086. 7

## UNIT — II

- V (a) Draw interrupt vector table of 8086. 8  
 (b) Discuss any four string manipulation instructions. 7

OR

- VI (a) Discuss the following 'Pseudo instructions' :  
 (i) MACRO (ii) SEGMENT (iii) STRUCT (iv) EXTERN 8  
 (b) Write an ALP for two 16 bit addition. 7

## UNIT — III

- VII (a) List main features of 80386. 8  
 (b) Differentiate L1, L2 and L3 cache memory. 7

OR

- VIII (a) Draw Pentium processor architecture. 8  
 (b) List main features of Pentium. 7

## UNIT — IV

- IX (a) Differentiate single core and multi core processors with block diagram. 8  
 (b) List the limitations of single core processor. 7

OR

- X (a) List the important technological features of IA processor. 8  
 (b) Specify the advantages of multi-core technology. 7