



C16-CM/IT-404

6433

BOARD DIPLOMA EXAMINATION, (C-16)
SEPTEMBER/OCTOBER - 2020
DCME—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. Calculate physical address if code segment starting memory address is 2000H and offset address is 1252H.
2. Draw the timing diagram for IOW (I/O write) operation in minimum mode.
3. List any three assembler directives.
4. List any three processor control instructions of 8086.
5. What is the need for an interrupt?
6. Write an assembly language program to add two 16-bit numbers.
7. Write about software interrupts.
8. List any three features of 80486.
9. Draw the 8051 register structure.
10. List the interrupts of 8051 microcontroller.

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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.** (a) Draw the pin diagram of 8086 microprocessor and explain the function of each pin. 5
(b) List any five 8086 data transfer instructions and explain. 5
- 12.** Explain addressing modes of 8086 microprocessor.
- 13.** (a) List any five arithmetic instructions of 8086 microprocessor. 5
(b) Explain CALL and RETURN instructions of 8086 microprocessor. 5
- 14.** Explain interrupt handling process in 8086 microprocessor.
- 15.** Draw the block diagram of 8259 (PIC) and explain the function of each block.
- 16.** Draw the architecture of Pentium processor and explain each unit.
- 17.** Draw the pin diagram of 8051 microcontroller and explain the function of each pin.
- 18.** Explain ports of 8051 microcontroller.
