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c09-CM-405

3462

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2017
DCM—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 and MN/MX pins of 8086?

2. Define fetch and execution cycles.

3. List the instruction format of 8086.

4. Define PUSH and POP instructions.

5. Classify the interrupts of 8086.

6. What is a subroutine?

7. List any three assembler directives with examples.

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8. List out 8257 DMA controller functional blocks.
9. Classify operating modes of 8279.
10. List any three features of 80386 microprocessor.

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 functional block diagram of 8086 and mark each part of it. 5
(b) Write the procedure for executing assembly language program, with an assembler. 5
12. Explain the various addressing modes supported by 8086 with examples.
13. Briefly explain arithmetic instructions of 8086.
14. Draw and explain functional block diagram of programmable interrupt controller (8259).
15. Write an assembly language program to add two 16-bit numbers.
16. Draw and explain internal architecture of programmable peripheral interface (PPI 8255).
17. Explain the working of USART (8251) with block diagram.
18. Draw and explain the functional architecture of 80286 with function of each block.

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