C14–CM–404/C14–IT–**404**

4452

BOARD DIPLOMA EXAMINATION, (C–14)

OCT/NOV—2016

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. Define microcomputer.

2. List the various registers of 8086.

3. What are PUSH and POP instructions?

4. Define linker and debugger.

5. Classify the interrupts of 8086.

6. Write the advantages of aassembly language programming.

7. List the features of 8259 interrupt controller.

8. Define simplex, half-duplex and full-duplex.

9. Differentiate between synchronous and asynchronous serial communications.

10. List the feaatures of Pentium processor.

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. Draw the functional diagram of INTEL 8086 microprocessor and explain the functions of each block.   3+7=10

12. Explain various addressing modes supported by 8086 with suitable examples.   10

13. Explain various assembly language development tools.   2×5=10

14. Explain 8259 interrupt controller with a functional diagram.
                                                        3+7=10

15. *(a)* Explain interrupt vector table.   4

(b) Write an assembly language program (ALP) to find number of even and odd numbers from given series of 6-bit hexadecimal numbers.   6

16. Draw internal block diagram of 8255 PPI and explain the functions of each unit.   3+7=10

17. Explain the working of 8257 DMA controller with block diagram.   3+7=10

18. Differentiate the advanced Pentium processors.   10

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