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C09–EC–404

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BOARD DIPLOMA EXAMINATION, (C–09)

OCT/NOV—2012

DECE—FOURTH SEMESTER EXAMINATION

MICROPROCESSORS

Time : 3 hours] [*Total Marks* : 80

PART—A

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. Explain cache memory.

2. Describe instruction format.

3. List the types of interrupts of 8086.

4. State the purpose of pointer and index registers.

5. Write any six features of Intel 8086 microprocessor.

6. List any three instructions which affect flags of 8086.

7. Generate the machine code for the instruction MOV AX, [SI]. The opcode for MOV is 100010.

8. Explain RETURN instruction.

9. Write any six features of 80486.

10. List any six features of 80386.

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PART—B

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

11. *(a)* Explain the fixed-point and floating-point representations with examples and compare them.

(b) Define micro-operation and macro-operation.

12. Draw the block diagram of accumulator-based CPU and explain the function of each unit.

13. *(a)* Write any five differences between 8-bit and 16-bit micro-processors.

(b) Explain the concept of parallel processing.

14. Describe block diagram and bus-cycle timing diagram of 8086 minimum mode.

15. *(a)* Describe any five assembler directives.

(b) List any two assembly language development tools and describe them.

16. Write an assembly language program to find the smallest of 'N' 8-bit number stored from SOURCE. Store the smallest number at RESULT.

17. Write any five differences among 80286, 80386, 80486 and Pentium.

18. Explain the architecture of 80286 with a neat diagram.

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