



C09-EC-404

3470

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2017
DECE—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 an instruction format? 3
2. Mention the fixed and floating point way of representation of numbers. $1\frac{1}{2}+1\frac{1}{2}$
3. State the need of memory segmentation. 3
4. State the features of Intel 8086 microprocessors. 3
5. Mention the use of general purpose registers in 8086. 3
6. List any three control transfer (branching) instructions of 8086. 3
7. Illustrate the procedure CALL, RETURN and parameter passing. $1+1+1$

- * 8. List any three processor control instructions of 8086. 3
9. Mention the concept of pipelining. 3
10. State the features of 80286 microprocessor. 3

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. Draw the block diagram of accumulator based CPU and explain the function of each unit. 4+6
12. Explain zero address, one address, two address and three address instructions with examples. 10
13. Explain the concepts of sequential processing, parallel processing and pipelining 3+3+4
14. (a) Explain the instruction queue and its storage. 5
(b) Explain the need for calculation of physical address. 5
15. List the data transfer instructions of 8086 and explain any three. 4+6
16. Explain the concepts of IF-THEN, IF-THEN-ELSE, multiple IF-THEN-ELSE and REPEAT-UNTIL with programs. 2+3+2+3
- * 17. Describe the architecture of 80486. 10
18. Describe and compare RISC and CISC. 5+5
