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C16-EC–403

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BOARD DIPLOMA EXAMINATION, (C-16)

AUGUST/SEPTEMBER—2021

DECE - FOURTH SEMESTER EXAMINATION

MICROPROCESSOR

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 the term fetch cycle and execution cycle.

2. Write the syntax and function of LDA instruction of 8085 microprocessor.

3. State the need of memory segmentation.

4. List different types of interrupts of 8086 microprocessor.

5. Write the generalized code for the following instruction of 8086 :

Microprocessor. (opcode for MOV is 100010)

MOV AX, 2548H.

6. List any three processor control instructions of 8086 microprocessor.

7. List the different conditional statements of 8086 microprocessor.

8. List any three assembler directives.

9. Distinguish any three differences between 80286 and 80386.

10. Define the pipe lining.

PART—B

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

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

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

11. *(a)* Explain multiplexing of address and data bus 8085 microprocessor. 5

(b) List different registers and state their functions in 8085 microprocessor. 5

12. Draw and explain the functional block diagram of 8086 microprocessor. 10

13. Draw and explain the timing diagram of memory write cycle in minimum mode operation of 8086 microprocessor. 10

14. Explain addressing modes of 8086 microprocessor with examples. 10

15. *(a)* Explain any three arithmetic instructions of 8086. 6

(b) Explain any two logical instructions of 8086. 4

16. Write an assembly language program using string manipulation instruction to find the length of the given string is 'WELCOME'. 10

17. Draw and explain the architecture of 80286 microprocessor. 10

18. *(a)* Explain instruction level parallelism. 5

(b) Compare RISC and CISC. 5

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