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BOARD DIPLOMA EXAMINATION, (C-16)

JUNE/JULY—2022

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.

1. Define microprocessor and microcomputer.

2. Write a short note on flag register.

3. Write short notes on PUSH and POP instructions of 8086.

4. What is the use of assembler directive? List any five assembler directives.

5. Write the steps for interrupt handling process in 8086.

6. What is the purpose of Mask Register and in-Service Register in 8259 interrupt controller?

7. Write any three reserved interrupts.

8. Write the comparisons between 80286 and 80386.

9. List any six features of micro-controller.

10. Write a short note on TCON register in 8051 controller.

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 Bus interface Unit and Execution unit of 8086 processor. 5

(b) Write an assembly language program to find smallest number from array of 8-bit numbers. 5

12. Explain any five processor control instructions. Write an example program on it. 10

13. *(a)* Write about the following : 6

(i) Assembler

(ii) Linker

(iii) Locator

(b) Explain any four branch instructions. 4

14. Draw and explain the operation of 8259 interrupt controller. 10

15. *(a)* Write about CALL and RET instructions. 4

(b) Explain LOOP statements with example. 6

16. Compare the features of advanced Pentium processors. 10

17. Explain different timer/counter operating modes of 8051 microcontroller. 10

18. Draw the pin diagram of 8051 micro-controller and specify function of each pin. 10

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