4452

BOARD DIPLOMA EXAMINATION, (C-14)
OCT/NOV—2018
DCME—FOURTH SEMESTER EXAMINATION

MICROPROCESSORS

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

PART—A   3×10=30

Instruction : (1) Answer **all** questions. Each question carries **three** marks.

(2) Answers should be brief and straight to the point and shall not exceed **five** simple sentences.

1. Define
   (*a*) Microcomputer
   (*b*) Microprocessor

2. List the general purpose registers of 8086 and write their functions.

3. List addressing modes of 8086.

4. State any four arithmetic instructions of 8086.

5. List the priorities of 8086 interrupts.

6. What is Procedure Programming?

7. State the need for Interrupt Controller.

8. Write the features of keyboard/display controller 8279.

9. Define the following terms :
   (*a*) Bit rate
   (*b*) Baud rate
   (*c*) Duplex transmission

10. Write any six features of Intel 80286.

Instruction : (1) Answer any **five** questions and each question carries **ten** marks.

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

11. Explain the five control transfer (branch) instructions of 8086 with examples.

12. Describe any ten assembler directives with examples.

13. What is the use of interrupt vector table? Explain the process of implementing interrupts using interrupt vector table in 8086.

14. Explain the block diagram of 8259 and pin configuration.

15. Explain the working of DMA controller with Block diagram.

16. Explain the process of interfacing 8251A with 8086.

17. With a neat sketch explain the architecture of Pentium pro processor.

18. (*a*) What is bus-cycle? Draw and explain the timing diagram for Maximum mode.

(*b*) Write an assembly language program to multiply two 16-bit numbers available in segment registers.

***