

2123

B.E. (Electronics and Communication Engineering)
Third Semester
EC-303: Microprocessor and Applications

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

- I. Explain the following:-
- a) Maskable Interrupt
 - b) Direct memory access
 - c) Trap Interrupt
 - d) Role of EU in 8086 processor
 - e) Bus timing and bus standard (5x2)

UNIT - I

- II. Explain the terms "random access" and "sequential access". Identify the type of access in the following:
- a) RAM
 - b) EPROM (10)
- III. Write an 8085 assembly language program, which takes the data from memory location X, and divides this byte by 8 and stores the result at memory location Y. (10)
- IV. a) Explain the programming model of 8085 microprocessor in detail.
b) Explain the additional data transfer 16 bit arithmetic instructions. (2x5)

UNIT - II

- V. a) Explain the functions of Counters and timers in processors.
b) Explain in detail the Johnson Counter. (2x5)
- VI. a) What are vectored interrupts in 8085? Explain each interrupt in brief.
b) Explain 8254 and how does 8259 differentiate between 8-bit and 16-bit microprocessors? (2x5)
- VII. a) Explain the concept of Stack and Subroutine in 8085 microprocessor.
b) Explain with the help of diagram the Intel 386 and Intel 486 microprocessor. (2x5)

x-x-x