

KATHMANDU UNIVERSITY
End Semester Examination
March, 2026

Level : B.E./BIT
Year : I/II
Time : 2 hrs. 30mins.

Course : COMP 231
Semester : II
F. M. : 40

SECTION "B"
[6Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

- ✓1. Explain how you could organize microprocessor-based system for its different components.
- ✓2. Why branching group instructions are most powerful instructions? Explain subroutine with the help of an example.
- ✓3. What do you mean by addressing mode. Explain the different addressing modes of 8085 microprocessor.
4. Draw a timing diagram for of instruction MVI C, A5H stored in memory location 8050H.
5. Explain 8288 Bus Controller with its neat block diagram.
6. List out the various interrupts of 8086 microprocessor. How these interrupts are managed in Interrupt Vector Table (IVT)?
- ✓7. Write down the features and applications of the 8254 Programmable interval timer.

SECTION "C"
[2Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

- ✓8. Draw an internal architecture of 8085 microprocessor. Explain each component with brief opinion.
9. What do you mean by directive? Explain the different directives of 8086 microprocessor with suitable example.
- ✓10. What do you mean by Direct Memory Access (DMA)? Explain DMA controller with a suitable block diagram. Illustrate different kinds of DMA transfer modes.