KATHMANDU UNIVERSITY
Second Internal Examination
February 2026

Level : C.E.
Year : II
Time : 1 hrs.

Course : COMP 231
Semester : II
F.M. : 20

Attempt ALL questions.

SECTION "A"
[3Q. x 5 = 15 marks]

1. Explain the internal architecture of 8086 microprocessor with its neat diagram.
2. What do you mean by directive? Explain the different directives of 8086 microprocessor.
3. Draw a timing diagram for of instruction MVI B, 85H stored in memory location C010H.

SECTION "B"
[10Q. x 0.5 = 5 marks]

Attempt *ALL* questions.

1. In 8086 assembly language, which register is commonly used as the stack pointer?
   [ ] AX [ ] BP [ ] SP [ ] DX

2. Which of the following is the purpose of an assembler in 8086 assembly language programming?
   [ ] To convert assembly language code into machine code
   [ ] To execute machine code directly
   [ ] To provide debugging tools for assembly language code
   [ ] To generate the source code for high-level programming languages

3. Which of the following 8086 instructions is used to perform a conditional jump based on the comparison of two operands?
   [ ] JMP [ ] JE [ ] JC [ ] LOOP

4. Which 8086 instruction is used to transfer data from a 16-bit register to a memory location?
   [ ] MOV [ ] SHL [ ] POP [ ] ADD

5. Which of the following is true about the "DB" directive in 8086 assembly language?
   [ ] It defines a byte of data and initializes it with a given value
   [ ] It defines a word of data

[ ] It defines a segment of memory for data storage
[ ] It is used to declare a label

6. Which register in the 8086 microprocessor is used to hold the offset address fo code segment?
[ ] AX [ ] BX [ ] IP [ ] SP

7. In the 8086 microprocessor, what is the function of the "INT" instruction?
[ ] To perform an interrupt operation
[ ] To transfer data from one register to another
[ ] To jump to a specific address
[ ] To enable a hardware interrupt

8. Which of the following pins in the 8086 microprocessor are used for address bus multiplexing?
[ ] A15-A0 [ ] AD15-AD0 [ ] S0-S7 [ ] T1-T4

9. What is the effect of the instruction CMP AX, BX in 8086?
[ ] Compares the values in AX and BX and stores the result in AX.
[ ] Compares the values in AX and BX and sets the condition flags based on the result.
[ ] Moves the value of AX into BX.
[ ] Performs a subtraction of AX and BX and stores the result in AX.

10. Which of the following instructions will NOT affect the flags in the 8086?
[ ] ADD [ ] SUB [ ] MOV [ ] CMP