



**Tribhuvan University**  
Faculty of Humanities & Social Sciences  
**OFFICE OF THE DEAN**  
2024

**Bachelor in Computer Applications**  
**Course Title: Microprocessor & Computer Architecture**  
**Code No: CACS 155**  
**Semester: II**

**Full Marks: 60**  
**Pass Marks: 24**  
**Time: 3 hours**

Candidates are required to answer the questions in their own words as far as possible.

**Group B**

Attempt any SIX questions.

[6×5 = 30]

2. Compare 8085 and 8086 microprocessors. Let A=454 and B=674, find the content of flag register when SUB B is performed?
3. Draw timing diagram of MVI B, 35H instruction with proper explanation. [5]
4. Explain data transfer and arithmetic instruction. [5]
5. Write codes for following statement by using zero, one and three address instructions.  
 $X = (A+B-C)/(D+E*F)$ . [5]
6. Draw and explain arithmetic pipeline. [5]
7. What is vector processing? Explain the Flynn's classification of parallel processing. [1+4]
8. Explain the following instructions. [1.5+2+1.5]  
a) DAA      b) RLC      c) INX B

**Group C**

Attempt any TWO questions.

[2×10 = 20]

9. Define micro-operation, micro-instruction and micro-program. Write a program to find smallest element among block of data. The length of the block is in the memory location 2310H and block itself starts from memory location 2050H. [3+7]
10. Draw the diagram of microprogrammed sequencer for control memory and explain it. [10]
11. What is interrupt? Explain its types. Explain how matrix multiplication is carried out on a computer supporting vector computation. [1+4+5]