Nepal College of Information Technology

**Unit Test**

Spring 2013

Program : BE\_IT\_Day Time : 2 hrs

Semester : (IV) FM : 70

Subject : Microprocessor & ALP PM : 35

* *Candidates are requested to give their answer as far as practicable in their own words.*
* *The figure in the margin indicates the full marks*
* ***Attempt ALL question***

1. a) Explain the evolution of Intel Series Microprocessors. (8)

b) Draw block diagram 8085 Microprocessor and explain in brief. (7)

2. a) Explain addressing modes of 8085 microprocessor. (6)

b) Write the function, addressing modes, size and name of machine cycles for the following instructions: i) MOV A,B ii) MVI A, 32H iii) LXI H, 2030H (6)

c) Define Instruction cycle, Machine cycle and T-states. (3)

3. a) Draw the timing diagram for the 8085 instruction IN 34H. (8)

b) Write an 8085 ALP that transfers an array of ten data stored at memory location starting from 2050H into memory location starting from 2070H. (7)

4. a) What is the significance of flag register? Explain the functions of flags in 8086 microprocessor. (7)

OR

Write an 8085 ALP that counts number of 1’s in the data present in memory location C020H and stores the count in the memory location C050H.

b) Assuming: DS=1000H, BX=2030H and SI=2020H; State the addressing mode of the following 8086 instructions and find the physical address of the source location. (8)

i) MOV AX, [1234H]

ii) MOV AX, [BX]

iii) MOV AX, [BX+SI]

iv) MOV AX, [BX+SI+5]

5. Write short notes.(any two) 2×5=10

a) Applications of Microprocessors

b) 8085 flag register

c) Microcontroller Vs Microprocessor

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