TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
2013

Full Marks: 40
Time: 2 hrs.

BIM / Third Semester / ITC 217: Microprocessor Programming

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

Group "A"

1. **Brief Answer Questions:**   [10 × 1 = 10]

   i. Why 8088 is considered 16 bit microprocessor?

   ii. How queue is implemented in 8086?

   iii. Write the use of Loop instruction.

   iv. What is the purpose of linker in assembly language program development?

   v. List the benefits of assembly language.

   vi. Define machine cycle.

   vii. Write the function of BHE / S7 pin.

   viii. What is the purpose of NMI?

   ix. What is DTE and DCE in serial communication?

   x. Give BSR control word to set and reset PC-5 separately for 8255.

Group "B"

Short Answer Questions: [5 × 3 = 15]

2. What are the benefits of Harvard architecture over Von – Neumann architecture?

3. Differentiate between 8086 and 8088 microprocessor.

4. Describe the purpose of the 8086 Interrupt Vector Table with diagram.

5. Write an assembly language program to input two characters from keyboard and display it.

6. Describe I/O Write Machine Cycle with its timing diagram.

Group "C"

Long Answer Questions: [3 × 5 = 15]

7. Describe internal registers of 8086 in detail.

8. Write an assembly language program to display the greatest number from given array of 5 numbers.

9. Draw the block diagram of 8255 PPI and explain.

✿✿✿