

TRIBHUVAN UNIVERSITY  
FACULTY OF MANAGEMENT

Office of the Dean

2014

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"**

**I. Brief Answer Questions:**

[10 × 1 = 10]

- i. How do you determine that Microprocessor is an 8, 16 or 32 bit?
- ii. Why instruction queue is required?
- iii. Write use of flag.
- iv. What is the function of a segment register in 8086?
- v. Identify the addressing mode for MOV AX, [BX].
- vi. Write the function of 8286.
- vii. What is ISR?
- viii. Define Asynchronous serial transmission.
- ix. Why interrupt is required?
- x. What is interrupt latency?

**Group "B"**

**Short Answer Questions:**

[5 × 3 = 15]

2. Describe various components of CPU with suitable diagram.
3. Make distinction between instruction and directives. Explain with examples.
4. Write 8086 program to input a upper case character from keyboard and display it in lowercase.
5. Sketch and explain RS 232 9 pin connection.
6. Describe various methods of parallel communication.

**Group "C"**

**Long Answer Questions:**

[3 × 5 = 15]

7. Describe the various addressing modes of 8086 microprocessor.
8. Write an assembly language program to read string from keyboard and display in reverse order.
9. Draw a block diagram of 8255 PPI and explain.

