# JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
## TEST -1 EXAMINATION- Sep 2016
### B.Tech(ECE) V Semester

COURSE CODE: 10B11CI401                    MAX. MARKS: 15

COURSE NAME: Microprocessors and Controllers

COURSE CREDITS: 4                          MAX. TIME: 1 HR

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Q.1.  [3 Marks. Each question is half mark]
  a)  Explain noise immunity of 8086 microprocessor.
  b)  List functions of the Control Unit.
  c)  Explain the addressing of stack in 8086?
  d)  Explain the instruction MOVSB.
  e)  How is -125.25 represented in IEEE-754 Single Precision Format?
  f)  What is the difference between a LATCH and a BUFFER?

Q.2.  [3 marks] Explain the sequence of operations performed by the 8086 while executing the instruction XOR DATAB[SI], AL. Given DS=AE61h, DATAB=EB51h, SI=10A9h, find the offset and physical memory addresses and comment on the addressing mode.

Q.3.  [3 marks] Draw the register architecture of 8086 and explain the functions of General Purpose Registers.

Q.4.  [3 marks] Describe the memory WRITE operation using timing diagrams and showing all control signals. Derive the ideal design specification for a memory to be interfaced to a 5 MHZ 8086 CPU.

Q.5.  [3 marks] Show integration of 8284 clock generator with 8086. Describe functions performed by the clock generator.