

EECE.3170: Microprocessor Systems Design I

Fall 2016

Lecture 4: Key Questions September 12, 2016

1. Describe the general characteristics of the x86 architecture.

2. Briefly describe the x86 registers.

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5. **Example:** Compute the address for the memory operand in each of the following instructions. The register contents and variables are as follows:

- $(ESI) = 00000100_{16}$
- $(EDI) = 00000200_{16}$
- $(EBX) = 00000300_{16}$

a. Destination operand in: `MOV [EBX+0400h], CX`

b. Destination operand in: `MOV [EDI+2*EBX], AH`

c. Destination operand in `MOV [EBX+EDI+0400h], AL`