

# **EECE.3170: Microprocessor Systems Design I**

Fall 2016

## Lecture 8: Key Questions

September 21, 2016

1. Describe the operation of the MUL and IMUL operations.

2. Describe the operation of the DIV and IDIV operations.

3. **Example:** Given  $EAX = 00000005h$  and  $EBX = 0000FF02h$ , what are the results of the following instructions? Assume each instruction starts with the values shown above in  $EAX$  and  $EBX$ .
- a.  $MUL\ BL$
  
  
  
  
  
  
  
  
  
  
  - b.  $MUL\ BH$
  
  
  
  
  
  
  
  
  
  
  - c.  $IMUL\ BH$
  
  
  
  
  
  
  
  
  
  
  - d.  $DIV\ BL$
  
  
  
  
  
  
  
  
  
  
  - e.  $DIV\ BH$
  
  
  
  
  
  
  
  
  
  
  - f.  $IDIV\ BH$