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ECE 375

Pre-Lab 5

1. Arithmetic functions:
  - a. ADD – add without carry
  - b. ADC – add with carry
  - c. ADIW – add an immediate value to word
  - d. SUB – subtract without carry
  - e. SUBI – subtract an immediate value
  - f. SBC – subtract with carry
  - g. SBCI – subtract an immediate value
  - h. SBIW – subtract an immediate value from word
  - i. MUL – multiply two unsigned registers
  - j. MULS – multiply signed
  - k. MULSU – multiply one signed, one unsigned
  - l. FMUL – multiply fraction, unsigned
  - m. FMULS – multiply fraction, signed
  - n. FMULSU – multiply signed and unsigned
  - o.
2. Word Addition:
  - a. R0 gets M(0110)
  - b. R1 gets M(0120)
  - c. R2 gets R0 plus R1
  - d. R0 gets M(0111)
  - e. R1 gets M(0121)
  - f. R3 gets R0 plus R1 plus carry
  - g. M(0101) gets R3, M(0100) gets R2
3. Word Subtraction:
  - a. R0 gets M(0110)
  - b. R1 gets M(0120)
  - c. R2 gets R1 minus R0
  - d. R0 gets M(0111)
  - e. R1 gets M(0121)
  - f. R3 gets R1 minus R0 and carry
  - g. M(0101) gets R3, M(0100) gets R2