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ECE 375

Pre-Lab 5

1. Arithemetic functions:
   1. ADD – add without carry
   2. ADC – add with carry
   3. ADIW – add an immediate value to word
   4. SUB – subtract without carry
   5. SUBI – subtract an immediate value
   6. SBC – subtract with carry
   7. SBCI – subtract an immediate value
   8. SBIW – subtract an immediate value from word
   9. MUL – multiply two unsigned registers
   10. MULS – multiply signed
   11. MULSU – multiply one signed, one unsigned
   12. FMUL – multiply fraction, unsigned
   13. FMULS – multiply fraction, signed
   14. FMULSU – multiply signed and unsigned
2. Word Addition:
   1. R0 gets M(0110)
   2. R1 gets M(0120)
   3. R2 gets R0 plus R1
   4. R0 gets M(0111)
   5. R1 gets M(0121)
   6. R3 gets R0 plus R1 plus carry
   7. M(0101) gets R3, M(0100) gets R2
3. Word Subtraction:
   1. R0 gets M(0110)
   2. R1 gets M(0120)
   3. R2 gets R1 minus R0
   4. R0 gets M(0111)
   5. R1 gets M(0121)
   6. R3 gets R1 minus R0 and carry
   7. M(0101) gets R3, M(0100) gets R2