CS 271 Computer Architecture and Assembly Language

Self-Check for Lecture#16

Solutions are posted

1. Convert the following infix expressions to RPN:
   a. \((a + b) - (c + d) \times e\)
   b. \(a + b \times c - d \times e / f + h\)

2. Convert the following postfix expressions to infix:
   a. \(abc+d**\)
   b. \(ab+cd/e*f/+g-h*\)

3. Let \(a = 5, b = 7, c = 4, d = 2, e = 3, f = 1, g = 6\). Evaluate the following RPN expressions:
   a. \(ab+c-d*\)
   b. \(ab+c+de*f/g-\)

4. Implement the statement \(G = (A + B \times C) / (D - E \times F)\) in the IA-32 floating-point unit. It’s not necessary to write a complete program or procedure ... just write an FPU code fragment.