Fourth quiz Ch 15
25 pts.

1. What is pH of a 2.54 M solution of NH$_2$(CH$_3$)? $K_b = 5.0 \times 10^{-4}$. (10 pt.)

2. A 0.040 M solution of an acid, HA, has a pH of 3.02. What is the $K_a$ for this acid? (10)

3. Which of the following acids has the strongest conjugate base? (5 pt)
   a. Ascorbic acid, $K_a = 8.0 \times 10^{-5}$
   b. Benzoic acid, $K_a = 6.0 \times 10^{-5}$
   c. 3-clorobenzoic acid, $K_a = 1.5 \times 10^{-4}$
   d. 2-hydroxybenzoic acid, $K_a = 1.1 \times 10^{-3}$
   e. Chloroacetic acid, $K_a = 1.4 \times 10^{-3}$