Answers to Questions with a Numerical Answer
ALE 12. Equilibria of Aqueous Solutions of Weak Acids & Weak Bases

(Reference: 18.3 – 18.5 Silb*erberg 5th edition*)

5.   **100% ionization**

9.   **pH = 2.87   1.3% ionization**

10. K_a **= 1.3 x 10^{-10}**

13. K_a **= 4.8 x 10^{-9} (if use rounded off hydronium ion concentration)**
       K_a **= 5.0 x 10^{-9} (if do not use rounded off hydronium ion concentration)**

14.   **[H$_3$O$^+$] = [F$^-$] = 2.3 x 10^{-2} M [OH$^-$] = = 4.3 x 10^{-13} M**

15.   **[H$_3$O$^+$] = [ClO$^-$] = 5.8 x 10^{-5} M [HClO] = 0.115 – 5.8 x 10^{-5} = 0.115 M**

17. K_b **= 1.6 x 10^{-10}**

18.   **pH = 11.50**