



2<sup>nd</sup> Quiz 1436 - 1437 H

الرقم المسلسل:

**Choose the correct answer (write your answer in the Answer sheet)**

1. Drano<sup>®</sup>, a commercial product used to clean drains, contains small bits of aluminum metal and  
A. ammonia  
B. acetic acid  
C. hydrochloric acid  
 D. sodium hydroxide
2. A net ionic equation for the reaction between CH<sub>3</sub>COOH and KOH is  
A.  $\text{CH}_3\text{COOH}_{(aq)} + \text{K}^+_{(aq)} \rightleftharpoons \text{CH}_3\text{COOK}_{(aq)}$   
B.  $\text{CH}_3\text{COOH}_{(aq)} + \text{OH}^-_{(aq)} \rightleftharpoons \text{H}_2\text{O}_{(l)} + \text{CH}_3\text{COO}^-_{(aq)}$   
 C.  $\text{CH}_3\text{COOH}_{(aq)} + \text{KOH}_{(aq)} \rightleftharpoons \text{H}_2\text{O}_{(l)} + \text{CH}_3\text{COOK}_{(aq)}$   
D.  $\text{CH}_3\text{COOH}_{(aq)} + \text{K}^+_{(aq)} + \text{OH}^-_{(aq)} \rightleftharpoons \text{H}_2\text{O}_{(l)} + \text{KCH}_3\text{COO}_{(aq)}$
3. The equilibrium constant expression for a sulphurous acid is  
A.  $K_a = [\text{H}^+][\text{HSO}_3^-]$   
 B.  $K_a = \frac{[\text{H}^+][\text{HSO}_3^-]}{[\text{H}_2\text{SO}_3]}$   
C.  $K_a = \frac{[2\text{H}^+][\text{SO}_3^{2-}]}{[\text{H}_2\text{SO}_3]}$   
D.  $K_a = \frac{[\text{H}^+][\text{SO}_3^{2-}]}{[\text{H}_2\text{SO}_3]}$
4. An Arrhenius acid is a substance that  
A. accepts a proton  
B. donates a proton  
 C. produces H<sup>+</sup> in solution  
D. produces OH<sup>-</sup> in solution

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# pH Scale

5. What species will form when  $H^+$  ions are in the presence of  $H_2O$  molecules?
- A.  $HO^+$
  - B.  $HO_2^+$
  - C.  $H_3O^+$
  - D.  $H_2O_2$
6. To distinguish between a strong acid and a strong base, an experimenter could use
- A. odor
  - B. magnesium
  - C. a conductivity test
  - D. the common ion test
7. How many acids from the list below are known to be weak acids?  
 $HCl$ ,  $HF$ ,  $H_2SO_3$ ,  $H_2SO_4$ ,  $HNO_3$ ,  $HNO_2$
- A. 2
  - B. 3
  - C. 4
  - D. 5
8. Which of the following is a characteristic of basic solutions?
- A. They donate  $H^+$  ions.
  - B. They have a pH less than 7.
  - C. They feel slippery.
  - D. They turn limus red
9. Which of the following is a characteristic of acidic solutions?
- A. They accept  $H^+$  ions.
  - B. They have a pH more than 7.
  - C. They react with Mg to produce  $H_2$  gas.
  - D. They turn limus blue.
10. A definition for a Brønsted-Lowry acid should contain which of the following phrases?
- A. the donation of  $H^+$
  - B. the donation of  $OH^-$
  - C. the acceptance of  $H^+$
  - D. the acceptance of  $OH^-$

ALL MY BEST WIS

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