Acids, Bases, and Salts Review

① An Arrhenius acid is defined as any compound dissociating in an aqueous solution to form _____ ions. Example: $HNO_3(aq.) \rightarrow H^+(aq.) + NO_3(aq.)$. Complete the following equation:

$HCl\ (aq.) \rightarrow$ _____

② An Arrhenius base is defined as any compound dissociating in an aqueous solution to form _____ ions. Example: $KOH\ (aq) \rightarrow K^+\ (aq) + OH^-\ (aq)$. Complete the following equation:

$NaOH\ (aq.) \rightarrow$ _____

③ Salts are compounds that dissociate in an aqueous solution releasing neither _____ nor _____ ions. Example: $KCl\ (aq.) \rightarrow K^+\ (aq.) + Cl^-\ (aq.)$. Complete the following equation:

$NaCl\ (aq.) \rightarrow$ _____

④ A solution that has strong conductivity and reacts with the metal to make hydrogen gas is a

[a] Strong Base [b] Weak Base [c] Strong Acid [d] Weak Acid

Answers ___

⑤ Which of the following is slippery to touch?

[a] Strong Acid [b] Strong Base [c] Strong Electrolyte [d] Water

Answers ___

⑥ The hydronium ion is

[a] H_3O^+ [b] H_2O [c] OH^- [d] H_2

Answers ___

⑦ A substance that changes color in an acidic or basic solution is called

[a] Neutralizer [b] Inhibitor [c] pH indicator [d] Catalyst

Answers ___

⑧ Name the following acids and bases

HF _____ HNO_3 _____

KOH _____ $Mg(OH)_2$ _____

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Answers

① An Arrhenius acid is defined as any compound dissociating in an aqueous solution to form hydrogen ions. Example: $HNO_3(aq.) \rightarrow H^+(aq.) + NO_3(aq.)$. Complete the following equation:

$$HCl\ (aq.) \rightarrow H^+\ (aq.) + Cl^-\ (aq.)$$

② An Arrhenius base is defined as any compound dissociating in an aqueous solution to form hydroxide ions. Example: $KOH\ (aq) \rightarrow K^+\ (aq) + OH^-\ (aq)$. Complete the following equation:

$$NaOH\ (aq.) \rightarrow Na^+\ (aq.) + OH^-\ (aq.)$$

③ Salts are compounds that dissociate in an aqueous solution releasing neither hydrogen nor hydroxyl ions. Example: $KCl\ (aq.) \rightarrow K^+\ (aq.) + Cl^-\ (aq.)$. Complete the following equation:

$$NaCl\ (aq.) \rightarrow Na^+\ (aq.) + Cl^-\ (aq.)$$

④ A solution that has strong conductivity and reacts with the metal to make hydrogen gas is a

[a] Strong Base [b] Weak Base [c] Strong Acid [d] Weak Acid

Answers c

⑤ Which of the following is slippery to touch?

[a] Strong Acid [b] Strong Base [c] Strong Electrolyte [d] Water

Answers b

⑥ The hydronium ion is

[a] H_3O^+ [b] H_2O [c] OH^- [d] H_2

Answers a

⑦ A substance that changes color in an acidic or basic solution is called

[a] Neutralizer [b] Inhibitor [c] pH indicator [d] Catalyst

Answers c

⑧ Name the following acids and bases

HF Hydrofluoric acid

HNO_3 Nitric acid

KOH Potassium hydroxide

$Mg(OH)_2$ Magnesium hydroxide