Practice Worksheet on Acids, Bases, and Salts

Subject: Chemistry
Date: 1/12/2025

Long Answer Questions

1. Differentiate between strong acids and weak acids, providing suitable examples for each.

2. Elaborate on the various ways in which acids can be classified, explaining each category with examples.

3. Define the term 'basicity' in the context of acids and provide at least three examples, explaining how basicity is determined.

4. Describe the reaction between acids and metals, providing a balanced chemical equation and discussing the products formed. Illustrate with an example.

5. Explain the process of neutralization, describing the reaction between an acid and a base. Give a balanced chemical equation for a specific example.

Multiple Choice Questions

1. Which of the following is a characteristic property of acids?

a) They taste sweet
b) They taste sour
c) They turn red litmus blue
d) They are slippery to touch

2. Which of the following is a strong acid?

a) Potassium hydroxide
b) Sodium hydroxide
c) Hydrochloric acid
d) Calcium hydroxide

3. What is a characteristic reaction of bases with litmus paper?

a) They turn blue litmus red
b) They turn red litmus blue
c) They taste sour
d) They react with metals to produce oxygen

4. What is the pH range of an acidic solution?

a) 7
b) Less than 7
c) Greater than 7
d) 14

5. Which of the following acids is a monoprotic acid?

a) Sulfuric acid
b) Hydrochloric acid
c) Acetic acid
d) Carbonic acid

Answer Key

Long Answer Questions - Expected Responses

1. Differentiate between strong acids and weak acids, providing suitable examples for each.

Expected Answer: Explain the difference between strong and weak acids with examples.

2. Elaborate on the various ways in which acids can be classified, explaining each category with examples.

Expected Answer: Describe the different ways acids can be classified.

3. Define the term 'basicity' in the context of acids and provide at least three examples, explaining how basicity is determined.

Expected Answer: Discuss the concept of basicity in acids and provide illustrative examples.

4. Describe the reaction between acids and metals, providing a balanced chemical equation and discussing the products formed. Illustrate with an example.

Expected Answer: Explain how acids react with metals and give a balanced chemical equation.

5. Explain the process of neutralization, describing the reaction between an acid and a base. Give a balanced chemical equation for a specific example.

Expected Answer: Describe the process of neutralizing an acid with a base and give an example.

Multiple Choice Questions - Correct Answers

1. Which of the following is a characteristic property of acids?

Correct Answer: They taste sour

2. Which of the following is a strong acid?

Correct Answer: Hydrochloric acid

3. What is a characteristic reaction of bases with litmus paper?

Correct Answer: They turn red litmus blue

4. What is the pH range of an acidic solution?

Correct Answer: Less than 7

5. Which of the following acids is a monoprotic acid?

Correct Answer: Hydrochloric acid