

*Name of the student:* ..... *Date:* 04/10/2020

## Properties of Acids and Bases

### 1. Properties of Acids

- ✓ Acids are corrosive in nature.
- ✓ They are good conductors of electricity.
- ✓ Their pH values are always less than 7.
- ✓ When reacted with metals, these substances produce hydrogen gas.
- ✓ All acids react with carbonate and produce Carbon dioxide.
- ✓ Acids are sour-tasting substances.



Complete the following reactions



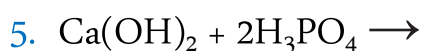
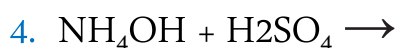
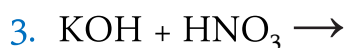
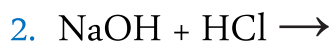
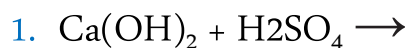
1.  $\text{Mg} + \text{HCl} \rightarrow$
2.  $\text{Ca} + \text{HNO}_3 \rightarrow$
3.  $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow$
4.  $\text{CaCO}_3 + \text{HCl} \rightarrow$
5.  $\text{NaHCO}_2 + \text{HCl} \rightarrow$

### 2. Properties of Bases

- ✓ They are found to have a soapy texture when touched.
- ✓ These substances release hydroxide ions ( $\text{OH}^-$  ions) when dissolved in water.
- ✓ In their aqueous solutions, bases act as good conductors of electricity.
- ✓ The pH values corresponding to bases are always greater than 7.
- ✓ Bases are bitter-tasting substances which have the ability to turn red litmus paper blue.



Complete the following reactions



Q. Write down five differences between acid and base.

Acid	Base

### 3. Neutral Substances

The neutral substance is a substance which has no acid or base properties, has the same amount of hydrogen and hydroxyl ions, and does not modify the colour of the litmus surface.

- ✓ These substances do not display any acidic or basic characteristics.
- ✓ Their pH values approximate to 7.
- ✓ Neutral substances have no effect on red or blue litmus paper.
- ✓ The pH of pure water is exactly 7.