

Chapter 7
Acids, Bases and Salts

I. Word Focus

1. Acidic
2. Basic
3. Salt
4. Indicators
5. Litmus
6. Phenolphthalein
7. Methyl orange
8. Alkali
9. Corrosive
10. Neutralisation

II. Answer the following:

1. How are acids classified based on its source?

Based on source, acids are of two types.

Organic acids

Acids obtained from living things such as plants and animals.

Most organic acids are weak.

Eg: citric acid, tartaric acid, malic acid, etc

Mineral acids

Acids obtained from minerals.

Most mineral acids are strong

Eg. hydrochloric acid
sulphuric acid
nitric acid

2. Is the distilled water acidic/basic/neutral? How would you verify it?

Distilled water is neutral in nature. The same can be verified by using red and blue litmus papers. Neither will show a colour change with distilled water. This proves that distilled water is neutral.

3. Describe the process of neutralization with the help of an example.

- The reaction between an acid and a base is known as neutralization reaction.
- In this reaction, both acid and base cancel each other's effect.
- Neutralisation reaction results in the formation of salt and water.
- During this reaction, energy in the form of heat is evolved.



- For example, when sodium hydroxide (NaOH) is added to hydrochloric acid (HCl), sodium chloride (NaCl) and water (H₂O) are obtained.



4. Give reason.

(a) An antacid tablet is taken when you suffer from acidity.

This is because during acidity, an excess of acids is produced in the stomach. An antacid contains base, such as milk of magnesia. These bases react with excess of acids and neutralize their effect, thus giving us relief.

(b) Calamine solution is applied on the skin when an ant bites.

When an ant bites, it injects formic acid into the skin. Calamine solution contains zinc carbonate which is basic in nature. So, it is applied on the skin to neutralize the effect of formic acid.

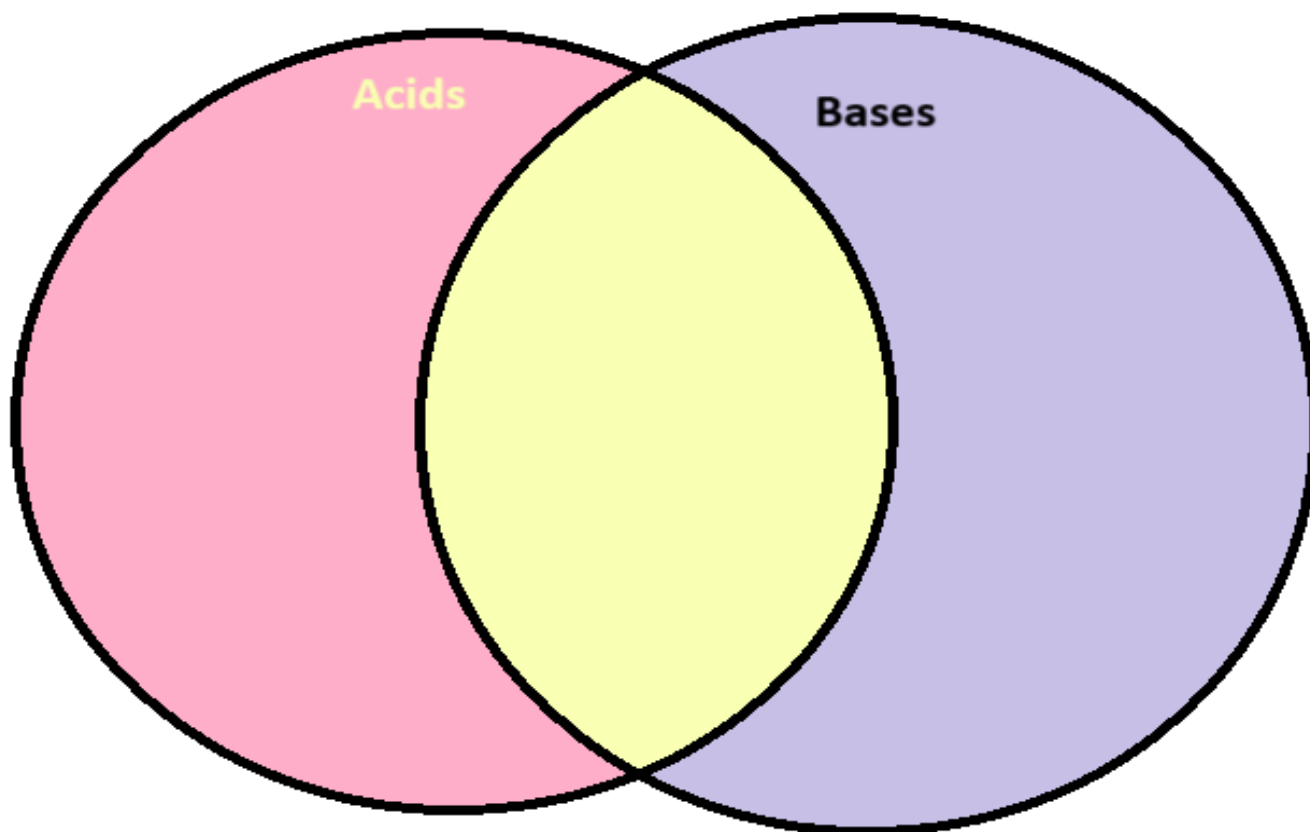
(c) Factory waste is neutralised before disposing it into the water bodies.

Factory wastes contain acids. Therefore, these wastes, when thrown directly to water bodies, harm aquatic lives. Hence, these wastes are neutralised with basic chemicals before disposing to water bodies.

5. Is the meaning of weak acid the same as that of dilute acid?

Answer on your own

III. Complete the Venn diagram for physical properties of acids and bases



IV. Case Study

1. A Case Study on Acid Rain: Causes, Effects and Control Measures