

CHEMISTRY

Case Study

The most common method to get an idea about the pH of solution is to use an acid base indicator. An indicator is a large organic molecule that works somewhat like a "color dye". Whereas most dyes do not change color with the amount of acid or base present, there are many molecules, known as acid - base indicators, which do respond to a change in the hydrogen ion concentration. Most of the indicators are themselves weak acids. Other commercial pH papers are able to give colors for every main pH unit. Universal Indicator, which is a solution of a mixture of indicators is able to also provide a full range of colors for the pH scale.

1. Which is the most common Acid base Indicator used by students in Laboratory ?
(a) Universal Indicator (b) Litmus (c) Phenolphthalein (d) None of these
2. Which of the following is not an olfactory Indicator ?
(a) Clove (b) Methyl Orange (c) Onion (d) Vanilla Essence
3. To protect tooth decay we are advised to brush our teeth regularly. The nature of the toothpaste commonly used is
(a) Acidic (b) Basic (c) Neutral (d) Corrosive
4. Which of the following statements is correct about an aqueous solution of an acid and of base ?
 1. Higher the pH, stronger the acid
 2. Higher the pH, weaker the acid
 3. Lower the pH, stronger the base
 4. Lower the pH, weaker the base
5. If a few drops of a concentrated acid accidentally spills over the hand of a student, what should be done ?
 - (a) Wash the hand with saline solution.
 - (b) Wash the hand immediately with plenty of water and apply a paste of sodium hydrogen carbonate.
 - (c) After washing with plenty of water apply solution of sodium hydroxide on the hand.
 - (d) Neutralize the acid with a strong alkali.