



Class 10th

Acid, Bases and Salts

Maximum Marks: 30

Q1) Name any three indicators for acids and bases, and also specify the color change in each. (3)

Q2) Define the following, and give one example each (1x6=6)

- Olfactory Indicator
- IUPAC name for CaOCl_2
- Sodium compound for softening hard water.
- Acid-base indicator
- Water of crystallization
- Chemical Substance used for treating indigestion.

Q3) Complete the following reactions, balance them, also specify the chemical names. (1x15=15)

- Zinc granules with dilute Sulphuric acid.
- Zinc with sodium hydroxide solution
- Sodium bicarbonate with hydrochloric acid
- Lime water with carbon dioxide.
- Limestone with water and CO_2 .
- Neutralization reaction.
- Copper oxide with dil. Hydrochloric acid.
- A base like Magnesium Hydroxide is dissolved in water (Ion formation)
- Potassium hydroxide dissolved in water
- Chlor-Alkali process
- Making of Bleaching Powder
- Making of Baking Soda
- Heating of Baking soda (For cooking)
- Making of washing soda
- Plaster of Paris with water

Q4) Give reasons (2x3=6)

- Why do HCl , HNO_3 etc. show acidic characters in aqueous solutions while solutions of compounds like alcohol and glucose do not show acidic character?
- While diluting an acid, acid should be added to water, and not water to acid.
- Basic solutions also have H^+ ions, still they are basic.



Q5) How is the concentration of:

(1x2=2)

- 1) OH^- affected when excess base is dissolved in a solution of sodium hydroxide?
- 2) H_3O^+ affected when a solution of an acid is diluted?

Q6) Draw a well labelled diagram to show the variation of pH with the change in concentration of H^+ and OH^- ions.

(2)



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