

Acid and Base

- 1) (a) What is pH scale and what's its range? How is it related to hydronium ion concentration?
(b) Explain any two roles played by pH levels of various chemicals in living organisms.
- 2) Plaster of Paris should be stored in a moisture-proof container. Explain why?
- 3) When white powder is mixed with water a hard solid mass is obtained. Write balanced chemical equation for this change.
- 4) On the basis of pH values, how will you identify neutral, acidic and basic salt solution?
- 5) A gas X reacts with lime water and forms a compound Y which is used as a bleaching agent in chemical industry. Identify X and Y. Give the chemical equation of the reaction involved.
- 6) Give two uses each of sodium hydroxide, hydrogen and chlorine.
- 7) How is Plaster of Paris chemically different from gypsum? How can they be interconverted? Write two uses of Plaster of Paris.
- 8) Explain the action of dilute hydrochloric acid on the following with chemical equations:
 - (a) Magnesium ribbon
 - (b) Sodium hydroxide
 - (c) Crushed egg shells
- 9) Fill in the blanks:-
 - a) Binary acid contain _____ atom.
 - b) Chemical formula of baking soda is _____
 - c) An acid that contains more than one acidic hydrogen atom is called a _____.
 - d) When an acid reacts with a metal, _____ gas is evolved and a corresponding _____ is formed.
 - e) When an acid reacts with a metal carbonate or metal hydrogencarbonate, it gives the corresponding salt, _____ gas and _____.
 - f) _____ is the fixed number of water molecules chemically attached to each formula unit of a salt in its crystalline form.
 - g) Phenolphthalein and methyl orange are _____ indicators.
 - h) Anhydrous sodium carbonate is commonly known as _____.

i) Soda – acid fire extinguisher contains a solution of sodium hydrogen carbonate and ____.

j) All alkali are bases but all bases are _____ alkali.

k) Alkali reacts with ammonium salts to produce corresponding salt, water and evolve ____.

l) Common name of sodium chloride is

m) Reaction of acids with bases are reactions.

n) Acids show their properties in the presence of

o) CH_3COONa salt is in nature.

10.) On which factors does the strength of an acid or a base depend? Explain.