

## Chapter 2 - ACIDS , BASES AND SALTS

### Section-A

- Q.1** Ammonium hydroxide is a weak base because –  
 (A) It has low vapour pressure (B) It is only slightly ionized  
 (C) It is not a hydroxide of any metal (D) It has low density
- Q.2** Which of the following is not a Lewis acid –  
 (A) CO (B)  $\text{SiCl}_4$  (C)  $\text{SO}_3$  (D)  $\text{Zn}^{2+}$
- Q.3** NaOH is a strong base because –  
 (A) It gives  $\text{OH}^-$  ion (B) It can be oxidised  
 (C) It can be easily ionised (D) Both (A) and (C)
- Q.4** Which of the following is not a Lewis acid –  
 (A)  $\text{BF}_3$  (B)  $\text{FeCl}_3$  (C)  $\text{SiF}_4$  (D)  $\text{C}_2\text{H}_4$
- Q.5** An example of a Lewis acid is –  
 (A) NaCl (B)  $\text{MgCl}_2$  (C)  $\text{AlCl}_3$  (D)  $\text{SnCl}_4$

### Section-B

- Q.1** (a) Give Arrhenius definition of an acid and a base.  
 (a) Choose strong acid and strong base from the following:  $\text{CH}_3\text{COOH}$ ,  $\text{NH}_4\text{OH}$ ,  $\text{KOH}$ ,  $\text{HCl}$
- Q.2** What is observed when sulphur dioxide is passed through  
 (a) water (b) limewater  
 Also write a chemical equation for the reaction that take place.
- Q.3** What is efflorescence ? Give an example.
- Q.4** (i) An aqueous solution has a pH value of 7.0. Is this solution acidic, basic or neutral ?  
 (ii) Which has a higher pH value, 1 M  $\text{HCl}$  or 1 M  $\text{NaOH}$  solution ?
- Q.5** Given below are the pH values of four different liquids : 7.0,  
 4.0, 0, 1, 4, 2.  
 Which of these could be that of  
 (i) lemon juice, (ii) distilled water. (iii) 1 M sodium hydroxide solution, (iv) tomato juice

### Section-C

**Q.1** “Sulphuric acid is a dibasic acid”. Write two reaction equations to justify this statement and name the reaction products in the two cases.

**Q.2** Name the gas evolved when dilute sulphuric acid acts on sodium carbonate. Write the chemical equation for the reaction involved.

**Q.3.** What is the chemical name of washing soda ? Name the three chief raw materials used for making washing soda by the Solvay Process.

State the chemical property in each case on which the following uses of baking soda are based :as an antacid (ii) as a constituent of baking powder.

**Q4.** How is Plaster of Paris obtained ? What reaction is involved in the setting of a paste of plaster of Paris? Can we obtain POP from gypsum ? If so, mention all the relevant reactions.

