Chapter-2

Worksheet-1

Q.1.Fill in the blanks

(i) _____ is a natural indicator whereas _____is a synthetic indicator. A _____ indicator is a mixture of several indicators.

(ii) Acids are _____ in taste and change the colour of blue litmus to_____.

(iii) Bases are _____ in taste and change the colour of red litmus to_____.

(iv) The strength of acids and bases depends on the number of _____ ions an _____ions produced respectively, when dissolved in water. Acids like $HClO_4$ which dissociate almost completely in water are called _____acids.

(v) The salts of a strong acid and strong base are _____with pH value of 7.

Q.2. Match the Columns

Column A	Column B
(i) Plaster of Paris	(a) $CaSO_4 . 2H_2O$
(ii) Bleaching powder	(b) $Na_2CO_3 . 10H_2O$
(iii) Washing soda	(c) $CaSO_4 . \frac{1}{2} H_2O$
(iv) Baking soda	(d) $CaOCl_2$
(v) Gypsurn	(e) $NaHCO_3$

Q.3. True/False

i. Hydrogen chloride gas turns blue litmus red.
ii. Neutral solutions have a pH of 0.
iii. Acidic or basic solutions in water conduct electricity as they produce hydrogen and hydroxide ions respectively.
iv. Solution of sodium hydrogen carbonate is acidic in nature.
v. Baking powder is used in banking cakes.

Q.5. A basic solution could have a pH of

(a) 1

(b) 11

(C) 7

(d) 2

Q.6. Which of the following gives the correct increasing order of acidic strength?!NCER1 Exemplar]

(a) Water < Acetic acid < Hydrochloric acid

(b) Water < Hydrochloric acid < Acetic acid

(c) Acetic acid < Water < Hydrochloric acid

(d) Hydrochloric acid < Water < Acetic acid

Q.7. Fruit Juice, such as orange juice, oxide

(a) Ferric acid

(b) Latic acid

(c) Sulpheric acid

(d) Nitric acid

Q.8. Common salt, besides, being used in kitchen can also be used as the few for making

(i) washing sods

(ii) Washing powder

(iii) baking soda

(iv) slated lime

(a) (i) and (ii)

(b) (i), (ii) and (iv)

(c) (i) and (iii)

(d) (i), (iii) and (iv)

Q.9.Which of the following salts does not contain water of crystaffication?

(a) Blue viroid

(b) Baking soda

(c) Washing soda

(d) Gypsum

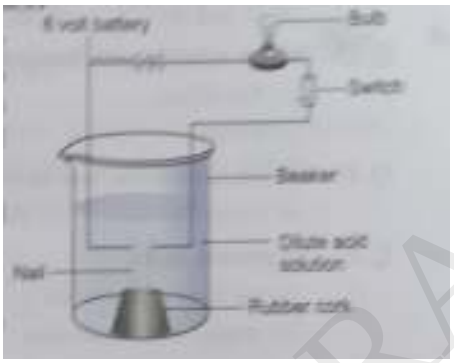
Q.10. In an attempt to demonstrate electrical conductivity through an electrolyte, the alongside apparatus was set up. Which among the following statement(s) is (are) correct?

(i) Bulb will not glow because electrolyte is not acidic

(ii) Bulb will glow because NaOH is a strong base and furnished ions for conduction.

(iii) Bulb will not glow because circuit is incomplete.

(iv) Bulb will not glow because it depends upon the type of electrolytic solution.



(a) (i) and (ii)

(b) (ii) and (iv)

(c) (ii) only

(d) (iv) only

Q.11. What is meant by water of crystallisation? Explain that the crystalline salts contain water of crystallisation.

Q.12. Write the formula and chemical name of bleaching powder.

Q.13. How would you distinguish between baking powder and washing soda by heating?

Q.14. What are strong and weak acids? In the following list of acids, separate strong acids from weak acids: Hydrochloric acid, citric acid, acetic acid, nitric acid, formic acid, sulphuric acid.

Q.15. Explain the formation of

(i) acidic

(ii) basic and

(iii) neutral slats.

Q.16. What happens when dilute hydrochloric acid is added to the following and write balanced chemical equations

(i) Bleaching powder

(ii) Zinc granules

(iii) Baking soda

Q.17. Give suitable reason for the following statements:

(i) We feel burning sensation in the stomach when we overeat.

(ii) The crystals of washing soda change to white powder on exposure to air.

Q.18. Why is arctic acid called a weak acid though there are four hydrogen atoms in the molecule?

Q.19. Why should curd and sour substances not be kept in brass and copper vessels?

Q.20. Why does an aqueous solution of an acid conduct electricity?