1. When the liumus solution is neither acidic nor basic, its colour is \_\_\_\_\_\_

a) red b) pink c) purple d) blue

2. Which of the following is a synthetic indicator

a) Litmus b) Turmeric c) Methyl orange d) Petunia leaves

3. Litmus is a/an

a) natural indicator b) synthetic indicator

c) olfactory indicator d) universal indicator

4. Which one of the following can be used as an acid-base indicator by a visually impaired student?

a) Litmus b) Turmeric c) Vanilla essence d) Petunia leaves

5. Which of the following statement is true for acids?

a) Bitter and change red litmus to blue

b) Sour and change red litmus to blue

c) Sour and change blue litmus to red

d) Bitter and change blue litmus to red

6. Metal + Acid → Salt + x

Metal + Base → Salt + y

Find x and y

a) x = Hydrogen gas, y= Carbon dioxide gas

b) x=Carbon dioxide gas, y= Hydrogen gas

c) x=y=Hydrogen gas

d) x=y=Carbon dioxide gas

7. Which of the following is used for dissolution of gold?

a) Hydrochloric acid b) Sulphuric acid c) Nitric acid d) Aqua regia

8. Sodium hydrogen carbonate when added to acetic acid evolves a gas. Which of the following statements are true about the gas evolved?

i) It turns lime water milky.

ii) It extinguishes a burning splinter.

Iii) It dissolves in a solution of sodium hydroxide.

iv) It has a pungent odour.

a) (i) and (ii) b) (i),(ii) and (iii) c) (ii), (iii) and (iv) d) (i) and (iv)

9. Which of the following substance will not give carbon dioxide on treatment with dilute acid?

a) Marble b) Limestone c) Baking soda d) Lime

10. An aqueous solution turns red litmus solution blue. Excess addition of which of the following solution would reverse the change?

a) Baking powder b) Lime

c) Ammonium hydroxide solution d) Hydrochloric acid

11. A solution reacts with crushed egg-shells to give a gas that turns lime water milky. The solution contains \_\_\_\_\_

a) NaCl b) HCl c) LiCl d) KCl

12. Which of the following statements is INCORRECT?

a) On the pH scale, pH can be measured from 0 to 14.

b) Higher the concentration of hydronium ions in the solution, lower is its pH value.

c) pH value of a neutral solution is 7.

d) As the pH value increases from 7 to 14, strength of acidic solution increases.

13. Which of the following is not a natural source of citric acid?

(i) Tamarind (ii) Orange (iii) Tomato (iv) Curd

a) Only (i) b) Only (ii) c) (ii) and (iii) d) (i), (iii) and (iv)

14. Which of the following is not a mineral acid?

a) Hydrochloric acid b) Citric acid c) Sulphuric acid d) Nitric acid

15. Which of the following gives the correct increasing order of acidic strength?

a) Water< Acetic acid< Hydrochloric acid

b) Water< Hydrochloric acid < Acetic acid

c) Acetic acid < Water < Hydrochloric acid

d) Hydrochloric acid < Water < Acetic acid

16. Which of the following is acidic in nature?

a) Lime juice b) Human blood c) Lime water d) Antacid

17. During the process of digestion, which of the following acids is produced in stomach?

a) Carbonic acid b) Nitric acid c) Hydrochloric acid d) Phosphoric acid

18. What is the chemical formula of milk of magnesia?

a) MgCl₂ b) Mg(OH)2 c) MgO d) MgH2

19. To protect tooth decay, we are advised to brush our teeth regularly. The nature of the toothpaste commonly used is \_\_\_\_\_\_

a) acidic b) neutral c) basic d) corrosive

20. The pH of the gastric juices released during digestion is \_\_\_\_\_\_

a) less than 7 b) more than 7 c) equal to 7 d) equal to 0

21. Calcium phosphate is present in tooth enamel. Its nature is \_\_\_\_\_

a) basic b) acidic c) neutral d) amphoteric

22. Nettle sting should be rubbed with \_\_\_\_\_

a) dilute solution of vinegar b) tamarind

c) curd d) leaves of dock plant

23. If a sample of water containing detergents is provided to you, which of the following methods will you adopt to neutralize it?

a) Treating the water with baking soda

b) Treating the water with vinegar

c) Treating the water with caustic soda

d) Treating the water with washing soda

24. Sodium carbonate is a basic salt because it is a salt of \_\_\_\_

a) strong acid and strong base b) weak acid and weak base

c) strong acid and weak base d) weak acid and strong base

25. Which of the following is an acidic salt?

a) Na2SO4 b) (NH4)2SO4 c) CH3COONa d) CH3COONH4

26. Which among the following is not a base?

a) NaOH b) KOH c) NH4OH d) C2H2OH

27. pH of an aqueous solution is 2.8. Addition of which of the following salts will help to increase the pH of this aqueous solution?

a) KBr b) CH3COONa c) NH4Cl d) K2SO4

28. One of the constituents of baking powder is sodium hydrogen carbonate, the other constituent is \_\_\_\_\_\_

a) hydrochloric acid b) tartaric acid c) acetic acid d) sulphuric acid

29. Which of the following is used in disinfecting drinking water?

a) Sodium hydroxide b) Baking soda

c) Bleaching powder d) Washing soda

30. Which of the following salts does not contain water of crystallisation?

a) Blue vitriol b) Baking soda c) Washing soda d) Gypsum

31. The chemical formula of Plaster of Paris is

a) CaSO4.H2O b) CaSO4.2H2O c) 2CaSO4. H2O d) CaSO4.H2O

32. What is the chemical formula of brine?

a) NaCl b) KCl c) NaOH d) Na2SO4

33. Which of the following solutions will not conduct electricity?

i)H2SO4 in water ii) C6H12O6 in water iii) Mg(OH)2 in water iv) CH3OH in water

a) (i) and (ii) b) (i) and (iii) c) (ii) and (iii) d) (ii) and (iv)

34. The number of water molecule in hydrated sodium carbonate is \_\_\_\_\_\_

a) 5 b) 2 c) 10 d) 24

35. The number of water molecule in hydrated copper sulphate is \_\_\_\_\_\_

a) 5 b) 2 c) 10 d) 24