

# INTERNATIONAL INDIAN SCHOOL BURAIDAH

## Worksheet for the Academic Year 2023-24

CLASS: 10 SUBJECT: CHEMISTRY DATE: 04/07/2023

### LESSON : CH-2 ACIDS BASES AND SALTS

Q.1 What is bleaching powder? How is it prepared? List two uses of bleaching powder.

Q.2 How is the concentration of hydronium ions ( $\text{H}_3\text{O}^+$ ) affected when a solution of an acid is diluted?

Q.3 Name the gas evolved when dilute HCl reacts with sodium hydrogen carbonate. How is it recognized?

Q.4 A substance X, which is an oxide of a metal is used intensively in the cement industry. This element is present in bones also. On treatment with water it forms a solution which turns red litmus blue. Identify X and also write the equation for its chemical reaction with water.

Q.5 What is meant by water of crystallization? Explain with an example.

Q.6 What is 'baking powder'? How does it make the cake soft and spongy?

Q.7 What would be the color of litmus in a solution of sodium carbonate?

Q.8 A compound of sodium 'X' is used in kitchen to make pakoras crispy. It is also used to remove acidity in stomach.

(i) Identify the compound 'X' and write its chemical formula.

(ii) What chemical reaction occurs on heating it during the cooking foods.

Q.9 Name the product obtained by recrystallisation of sodium carbonate and write its chemical formula.

Q.10 (a) How does baking soda help to make cakes and bread soft and spongy?

(b) List the raw materials used for the preparation of baking soda.

(c) Write chemical equation for its preparation.

Q.11 A pinch of baking soda was added to dilute acetic acid, when a lot of effervescence took place with the formation of a sodium salt, a gas and water.

(a) Name the sodium salt and write its molecular formula.

(b) Name the gas evolved and a way to test it.

Q.12 Write the chemical formula of washing soda. How can it be obtained from baking soda? Name an industrial use of washing soda other than washing clothes

Q.13 A compound which is prepared from gypsum has the property of hardening when mixed with a proper quantity of water. Identify the compound. Write the chemical equation for its preparation. For what purpose is it used in hospitals?

Q.14 You might have seen lemon or tamarind juice being used to clean tarnished surface of copper vessels. Explain why these sour substances are effective in cleaning the vessels?

Q.15 Crystals of a substance changed their color on heating in a closed vessel but regained after sometime, when they were allowed to cool down.

(a) Name one such substance.

(b) Explain the phenomenon involved.

Q.16 (i) What is meant by the term hydrated salt?

(ii) Give two examples of hydrated salt which are white and state their chemical formula.

Q.17 (a) What is meant by the term water of crystallization? How many molecules of water are present in hydrated copper sulphate? Write its formula. What colour change do you observe when it is heated?

Q.18 (i) Define pH scale. Draw a figure showing variation of pH with the change in concentration of  $\text{H}^+$  (aq) and  $\text{OH}^-$  (aq) ions.

(ii) Mention the range of pH of acidic solution, basic solution and neutral solution respectively.

Q.19 With the increase in the concentration of hydrogen ions, the pH value will :

(a) increase (b) decrease (c) remain constant (d) remain fluctuating

Q.20 The gas which is usually liberated when an acid reacts with a metal :

(a) nitrogen (b) carbon dioxide (c) hydrogen (d) chlorine