

WORK SHEET-1

1. What is the common name of the compound  $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ ?
2. Name the substance which on treatment with chlorine yields bleaching powder.
3. Name the sodium compound which is used for softening hard water.
4. The substance X commonly used in the kitchen for making tasty crispy pakoras and also it is added for faster cooking. It is produced using sodium chloride as one of the raw materials. It is a mild non corrosive basic salt.
  - i. Write the chemical name of the substance 'X'.
  - ii. Write equation for formation of substance 'X'.
  - iii. Write balanced chemical equation when 'X' is heated during cooking.
5. 'X' which is also an ingredient in antacids is used for making 'Y', which is a mixture of 'Y' and a mild edible acid such as tartaric acid.
  - i. Identify the chemicals
  - ii. Also write uses of 'X' and 'Y'
6. What does  $10\text{H}_2\text{O}$  signify in  $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ ? Does it make  $\text{Na}_2\text{CO}_3$  wet?
7. Copper sulphate crystals which seem to be dry contain water of crystallisation. When we heat the crystals, this water is removed and the salt turns white. If you moisten the crystals again with water, you will find that blue colour of crystals reappears.
  - i. What is water of crystallisation?
  - ii. How many water molecules are present in one formula unit of copper sulphate?
  - iii. Write chemical formula for hydrated copper sulphate.
  - iv. Name any two other substances having water of crystallisation.
8. What happens when Plaster of Paris reacts with water? Also give chemical equation.
9. Write uses of Plaster of Paris.
10. Why only half a molecule of water is shown to be attached as water of crystallisation in Plaster of Paris?