



ACADEMIC WORLD SCHOOL™

BEMETARA

SUMMER VACATION ASSIGNMENT

SESSION 2020-21

CLASS-X

SUBJECT- SCIENCE (CHEMISTRY)

➤ **General Instructions :-**

- Answer all the questions as instructed.
- Write in clean and neat hand writing.
- Refer video lessons to answer these questions.

Chapter-1 (N.C.E.R.T.) (Chemical Reactions & Equations)

- 1) Write the balanced chemical equations for the following reactions:-
 - a) Calcium hydroxide+ Carbon dioxide----→ Calcium carbonate + Water
 - b) Barium chloride+ Potassium sulphate ----→ Barium sulphate + Potassium chloride
 - c) Zinc carbonate -----→ Zinc oxide + Carbon di oxide.
 - d) Hydrogen + Nitrogen -----→ Ammonia
 - e) Sodium hydroxide + Sulphuric acid -----→ Sodium sulphate + Water
- 2) What happens when zinc granules are treated with dilute solution of H₂SO₄, HCl, HNO₃, NaCl & NaOH? Also write the chemical equations if reaction occurs.
- 3) On adding a drop of barium chloride solution to an aqueous solution of sodium sulphate, white precipitate is obtained.
 - a) Write a balanced chemical equation of the reaction involved.
 - b) What other name can be given to this precipitation reaction?
 - c) On adding dilute hydrochloric acid to the reaction mixture, white precipitate disappears. Why?

Chapter-2 (N.C.E.R.T.) (Acids, bases & salts)

- 4) (a) What is called POP? How is it prepared? Why is it stored in air tight container? What happens when gypsum is heated to high temperature?
(b) How is bleaching powder manufactured on large scale? Write its uses.
- 5) A baker found that the cake prepared by him is hard and small in size. Which ingredient has he forgotten to add that would have caused the cake to raise and become light? Explain.
- 6) What are the various products which are obtained by electrolysis of molten NaCl and aqueous solution of NaCl?
- 7) How would you show that copper sulphate crystals contain water molecules of crystallization?

Chapter-3 (N.C.E.R.T.) (Metals & Non metals)

- 8) Differentiate between calcination & roasting. Explain with examples.
- 9) What do you mean by rusting? How can it be prevented?
- 10) a) Explain the formation of ionic bond in calcium chloride and beryllium chloride.
b) Explain the formation of covalent bond taking any 2 examples.
