



**CLASS – X**  
**HOLIDAY HOMEWORK**  
**CHEMISTRY**

Q1. What happens chemically when quicklime is added to water filled in a bucket?

Q2. Why do gold and platinum not corrode in the presence of moist air?

Q3. Give reason for the following observations:

1. An aqueous solution of sodium chloride is neutral but an aqueous solution of sodium carbonate is basic.
2. Fizzing in hydrochloric acid is more vigorous than in acetic acid on adding sodium bicarbonate.
3. Dry HCl is not an acid.
4. Toothpastes that we use are mild bases.

Q4. Balance the following equations:

1.  $\text{MnO}_2 + \text{HCl} \rightarrow \text{MnCl}_2 + \text{H}_2\text{O} + \text{Cl}_2$
2.  $\text{Ca(OH)}_2 + \text{HNO}_3 \rightarrow \text{Ca(NO}_3)_2 + \text{H}_2\text{O}$
3. Lead nitrate on reaction with potassium iodide gives lead iodide and potassium nitrate.

Q5. Two solutions of pH 3 and 9.5 respectively. Which of these will turn litmus solution from blue to red and which will turn phenolphthalein from colourless to pink?

Q6. A student dropped few marble pieces in dil HCl, contained in a test tube. The gas evolved was then passed through lime water. What change would be observed in lime water? What will happen if excess of gas is passed through lime water? With the help of balanced chemical equations for all the changes explain the observations.

Q7. What happens when zinc granules are treated with the following compounds: HCl, NaOH, NaCl,  $\text{H}_2\text{SO}_4$  ?

Q8. Complete the following chemical equations:

1.  $\text{FeSO}_4 \rightarrow$  (upon heating)
2.  $\text{Pb(NO}_3)_2 \rightarrow$  (upon heating)
3.  $\text{Zn} + \text{CuSO}_4 \rightarrow$

Q9. What is observed when a solution of potassium iodide is added to a solution of lead nitrate taken in a test tube? What type of reaction is this? Write balanced chemical equation to represent the above reaction.

Q10. A molecule of glucose contains six hydrogen atoms, even then its solution in water is non conducting. Why?