

## Chemistry Revision questions, Class 7

1. An element 'X' has 11 protons and 12 neutrons. What is its atomic number?
2. a) Differentiate between an ion and an atom.  
b) How are cations and anions formed? Give one example of each.
3. a) Define 'valency'.  
b) Give the formulae of the following compounds-  
i) Iron(III) sulphate ii) Aluminum phosphate iii) Potassium bicarbonate iv) Ammonium sulphate
4. a) What is a balanced equation? Why should an equation be balanced?  
b) Balance the equations-  
i)  $\text{Al} + \text{H}_2\text{SO}_4 \rightarrow \text{Al}_2(\text{SO}_4)_3 + \text{H}_2$   
ii)  $\text{P}_2\text{O}_5 + \text{H}_2\text{O} \rightarrow \text{H}_3\text{PO}_4$
5. Metal 'A' reacts vigorously with cold water and the reaction is highly exothermic. Metal 'B' can displace  $\text{H}_2$  only from steam and the reaction is reversible.  
Name the metals and give balanced equations for both reactions.
6. a) Name two natural and two man-made sources of air pollution?  
b) What is air pollution?
7. a) How can you obtain  $\text{O}_2$  from-  
i)  $\text{H}_2\text{O}_2$  ii)  $\text{KClO}_3$   
Give equations only.  
b) What is the role of  $\text{MnO}_2$  in these reactions?
8. What are the products obtained -  
a)  $\text{SO}_2$  is dissolved in water.  
b) A candle burns in air.  
c) Oxidation of food.
9. a) What are the raw materials taken in the laboratory preparation of  $\text{H}_2$ ?  
b) Give the equation for the above reaction.  
c)  $\text{H}_2$  is the lightest element and lighter than air. How can you prove it experimentally?
10. a) What happens when  $\text{H}_2$  is passed over heated copper oxide? Mention your observations.  
b) State the role of  $\text{H}_2$  in this reaction.
11. Explain what you understand by hydrogenation of vegetable oil.
12. What happens when  $\text{H}_2$  reacts with  $\text{N}_2$  under certain conditions? Give equations.
13. Define an acid and classify acids based on their source.
14. Distinguish between strong and weak acid and give one example.
15. What do you observe -  
a) Dil.  $\text{HCl}$  is added to sodium carbonate and the gas evolved is passed into lime water.  
b) An alkali is added to ammonium chloride.
16. Identify the acid, base or salt used in-  
a) Baking industry b) In aqua regia c) In soft drinks d) In preparation of Mortar