Chemical reactions and equations theory test

1. Why decomposition reaction is opposite of combination reaction? Explain with example. 2
2. One X metal turns black when reacts with O2. Identify the metal and how can we get back the X metal from its compound? 2
3. Give two examples of double displacement reaction, also state differences from single displacement. 3
4. What is the chemical formula of rust? 1
5. How can we get quick lime from slaked lime? Write two uses of quick lime. 2
6. Complete the equation

   Pb(NO3)2-……(thermal decomposition) 1
7. Why the volume of H2 is double than O2 collected in electrodes after electric decomposition of H2O? which chemical should we use to increase the rate of reaction? 1+1=2
8. AgCl is kept in dark container. Why? 2
9. When we add Ag to CuSO4 what will happen? 1
10. What are the characteristics of chemical reactions? Explain any one. 2+1=3
11. Write down the equation for thermal decomposition of copper sulphate crystal. 2
12. A substance X is pale green in colour. It changes to reddish brown if kept in air for a long time. X decomposes to brown coloured metal oxide Y along with two oxides of a yellow coloured non- metal. Identify X and Y and write the chemical reaction involved. 2
13. A metal X reacts with oxygen to form metal oxide Y which is used for drying ammonia. Y dissolves in water producing Z with a hissing sound which is used for white washing. The clear solution of Z reacts with CO2 to form white precipitate. Identify X,Y and Z and write the chemical equations involved. 3
14. A grey coloured metal X is used in making dry cell. It is also used for coating iron metal to prevent it from rusting. When granules of X are added to blue solution of compound of a reddish brown metal Y , the colour of the solution gets discharged and metal Y is formed . identify X and Y , write the chemical reaction and identify the type of reaction. 3
15. An aqueous solution of metal nitrate X reacts with sodium bromide solution to form yellow precipitate of compound Y which is used for photography. Y on exposure to sunlight undergoes decomposition reaction to form metal present in X along with orangish brown gas. Identify X and Y and write chemical equations for the reaction involved. 3
16. A compound X has pH 7. Its acidified solution undergoes decomposition in presence of electricity to produce Y and Z. identify X,Y an Z and what is the ratio by volume of Y:Z. 2