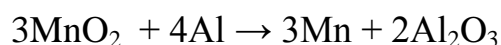


INDIAN SCHOOL MUSCAT
DEPARTMENT OF CHEMISTRY
QUESTION BANK
CLASS X
CHEMICAL REACTIONS AND EQUATIONS

One mark questions

1. What change in color is observed when white silver chloride is left exposed to sunlight? State the type of chemical reaction in this change.
2. Why do gold and platinum not corrode in moist air ?
3. A magnesium ribbon is burnt in oxygen to give a white compound X accompanied by the emission of light . if the burning ribbon is now placed in an atmosphere of nitrogen, it forms a compound Y . write the chemical formulae of X and Y.
4. Name the reducing agent in the following reaction :



Two mark questions

5. Why do fireflies glow at night?
6. Write balanced chemical equations for the reactions that take place during respiration. Identify the type of combination reaction that takes place during this process and justify the name. Give one more example of this type of reaction.
7. A zinc plate put into a solution of copper sulphate kept in a glass container. It was found that blue color of the solution gets fader with the passage of

time. After a few days, when zinc plate was taken out of the solution, a number of holes were observed on it.

- i. State the reasons for the changes observed on the zinc plate.
- ii. Write the chemical equation for the reaction involved.

8. Write a balanced chemical equation for the reaction between sodium chloride and silver nitrate indicating the physical state of the reactions and the products.

9. Consider the following chemical reaction:

X + barium chloride _____ Y + sodium chloride (white ppt)

- a) Identify 'X' and 'Y'
- b) Name the type of reaction.
- c)

Three mark questions

10. When you have mixed the solutions of lead (II) nitrate and potassium iodide,

- i. What was the color of the precipitate formed and, can you name the precipitate?
- ii. Write the balanced chemical equation for this reaction.
- iii. Is this also a double displacement reaction?

11. Write the chemical equation of the reaction in which the following changes have taken place with an example of each :

- I. Change in color
- II. Change in temperature
- III. Formation of precipitate

12. Describe an activity to observe what happens when quick lime is added to water taken in a beaker. State two important observations and name the type of reaction taking place.
13. When the powder of a common metal is heated in an open china dish, its color turns black. However, when Hydrogen is passed over the hot black substance so formed, it regains its original color. Based on the above information, answer the following questions :
- What type of chemical reaction takes place in each of the given two steps?
 - Name the metal taken place in the powder form.
 - Write balanced chemical equations for both reactions.
14. What is redox reaction? Identify the substance oxidized and the substance reduced in the following reactions :
- (a) $2\text{PbO} + \text{C} \rightarrow 2\text{Pb} + \text{CO}_2$
- (b) $\text{MnO}_2 + 4\text{HCl} \rightarrow \text{MnCl}_2 + 2\text{H}_2\text{O}$
15. A silver article generally turns black when kept in the open for a few days. The article when rubbed with toothpaste again starts shining.
- (a) Why do silver articles turn black when kept in the open for a few days ? Name the phenomena involved.
- (b) Name the black substance formed and give its chemical formula.

Five Mark Questions

- 16.(a) Explain two ways by which food industries prevent rancidity.
- (b) Discuss the importance of decomposition reaction in metal industry with three points.

17. During the reaction of some metals with hydrochloric acid, following observations were made:-

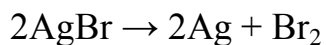
- (a) Silver metal does not show any change.
- (b) The temperature of the reaction mixture rises when Aluminium is added.
- (c) The reaction of sodium metal is found to be very explosive.
- (d) Some bubbles of a gas are seen when Lead(Pb) is reacted with acid.

Explain these observations giving suitable reasons.

18. Write a balanced equation for each of the following reactions and classify them:-

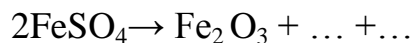
- a) Lead acetate solution is treated with dilute hydrochloric acid to form lead chloride and acetic acid solution .
- b) A piece of sodium metal is added to absolute ethanol to form sodium ethoxide and hydrogen gas.
- c) Iron (III) oxide on heating with carbon monoxide reacts to form solid iron and liberates carbon dioxide gas.
- d) Hydrogen Sulphide gas reacts with oxygen gas to form solid Sulphur and liquid water.
- e) Aluminium metal reacts with bromine to form Aluminium Bromide.

19. (a) Write the essential conditions for the following reaction to take place :



(b) Write one application for this reaction.

(c) Complete the following chemical equation of a chemical reaction



(d) What happens when water is added to quick lime. Write chemical equation.

(e) What change in color is observed When white silver chloride is left exposed to sunlight? State the type of reaction.

20. When you have mixed the solutions of lead (II) nitrate and potassium iodide,

- i. What was the color of the precipitate formed and, can you name the precipitate?
- ii. Write the balanced chemical equation for this reaction.
- iii. Is this also a double displacement reaction? If yes then why?