

Chemical Reactions and Equations

ONE MARKS QUESTION

1. Write the name of the products formed by heating gypsum at 373K. Write one use of it.
2. On what chemical law, balancing of chemical equation is based?
3. Identify the compound oxidized in the following reaction: $\text{H}_2\text{S}(\text{g}) + \text{Cl}_2(\text{g}) \rightarrow \text{S}(\text{s}) + \text{HCl}(\text{g})$
4. Give an example of photochemical reaction.
5. Name the reaction which forms insoluble salts.
6. Name the product obtained and type of reaction given below:



7. Give the chemical formula of rust.
8. Plaster of Paris should be stored in a moisture-proof container. Explain why?
9. An organic compound burns with a sooty flame. Is it a saturated or an unsaturated compound?
10. What would be the electron dot structure of carbon dioxide which has the formula CO_2 ?
11. Why do potato chip manufacturers fill the packet of chips with nitrogen gas?
12. What is the IUPAC name of acetic acid and ethyl alcohol.
13. Why should curd and sour substances not be kept in brass and copper vessels?
14. What is the common name of the compound CaOCl_2 ?

TWO MARKS QUESTION

15. Explain the following in terms of gain or loss of oxygen with one example:
 - a. Oxidation
 - b. Reduction
16. A copper coin is kept in a solution of silver nitrate for some time, what will happen to the coin and the color of the solution?
17. Why do we apply paint on iron articles?
18. What happens chemically when quicklime is added to water?
19. Classify the following reaction as combination, decomposition, displacement and double displacement reaction:-
 - a) $\text{BaCl}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + 2\text{HCl}$
 - b) $3\text{CuSO}_4 + 2\text{Al} \rightarrow \text{Al}_2(\text{SO}_4)_3 + 3\text{Cu}$
 - c) $\text{ZnCO}_3 \rightarrow \text{ZnO} + \text{CO}_2$
 - d) $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
20. What is a precipitation reaction? Give an example.

THREE MARKS QUESTION

21. What is rancidity? Write the common methods to prevent it.
22. What is corrosion? State the conditions necessary for rusting of iron. How rusting is harmful?
23. Name the type of reactions in the following cases:
- Garbage producing foul smell
 - Burning of natural gas.
 - Carbon dioxide gas passed through lime water.
24. Blue crystals of copper sulphate on heating in a dry test tube become colorless. Give reasons.
25. Give an example, each for thermal decomposition and photochemical decomposition reactions. Write balanced equation for the same.
26. Why respiration is considered an exothermic reaction? Explain.
27. Why photosynthesis is considered an endothermic reaction? Explain.
28. Why is decomposition reactions called opposite of combination reactions? Write equations for these reactions.
29. What happens when electricity is passed through acidified water?

FIVE MARKS QUESTION

30. a. Why can not a chemical change be normally reversed?
b. Why is it always essential to balance a chemical equation?
c. What happens when CO_2 gas is passed through lime water and why does it disappear on passing excess CO_2 ?
d. Can rusting of iron take place in distilled water?
31. Write chemical equations for the following and balance them.
- Zinc carbonate(s) \rightarrow Zinc oxide + Carbon dioxide
 - Potassium bromide (aq) + Barium iodide (aq) \rightarrow Potassium iodide + Barium bromide.
 - Nitrogen + Hydrogen \rightarrow Ammonia
32. A shiny brown colored element 'X' on heating in air becomes a black colored compound. Name the element 'X' & black the colored compound formed. Also write the equation.