

CHEMISTRY (XII)

CHAPTER 6 (TRANSITION ELEMENTS)

Short Questions:

1. Explain chromyl chloride test. Give chemical equation.
2. How KMnO_4 can be prepared by electrolytic method?
3. Write formulas of chromate and dichromate ions. In which colour they usually exist?
4. Give coordination number and oxidation number of iron (Fe) in $\text{K}_4[\text{Fe}(\text{CN})_6]$
5. What are chelates? Give an example.
6. Why does damaged tin plated iron get rusted quickly?
7. What are typical and non-typical transition elements?
8. Give reason for the development of colours in the transition metal complexes.
9. Give formulas of Magnetite and Haematite.
10. Write carbon content in pig iron and cast iron.
11. What is the %age of carbon in different types of steel?
12. Why transition elements have variable oxidation states?
13. What is ligand? Give types of ligands.

OR

Define Ligand with an example.

14. Complete and balance the following chemical equation?



15. Define sacrificial corrosion.
16. KMnO_4 acts as oxidizing agent. Show with two examples.
17. What is Stadelers process?
18. What are chromates and dichromates?
19. How entrapped bubbles of air removed from molten steel?
20. What is meant by interstitial compound and substitutional alloy?
21. Define Paramagnetism, diamagnetism and Ferromagnetism.
22. What is meant by outer transition metals and inner transition metals?
23. Why d and f block elements are called transition elements?
24. What is galvanizing? How it is done?

LONG QUESTIONS:

1. Explain Bessemer's process for formation of steel.
2. Explain the following terms by giving examples.
 - a. Ligands
 - b. Coordination number
 - c. Chelates
 - d. Coordination sphere
3. Explain the following properties of transition elements.
 - a. Colour
 - b. Chelates formation
4. How does electronic configuration of valence shell affect the following properties of transition elements.
 - a. Paramagnetism
 - b. Oxidation states
5. Write down any four properties of transition elements.
6. KMnO_4 acts as oxidizing agent. Give four reactions in support of your answer.
7. Describe the manufacture of wrought iron from cast iron.