REMEDIAL TESTCLASS XII

CHEMISTRYTOPIC P AND D BLOCK ELEMENTS

M.M. 50QUES. NO. 1-10 -1 MARK QUES. NO. 11-20 -2 MARKQUES. NO. 21-25 -3 MARK QUES. NO. 26 -5 MARK

1. **Which type of cation are capable of replacing aluminum in alums**
2. **SiF_6^{-2} is known but $SiCl_6^{-2}$ is not?**
3. **Are all the five bonds in PCl_5 are same?**
4. **Why does Sulphur in Vapour state exhibit paramagnetic behavior?**
5. **Deduce the molecular shape of BrF_3 on the basis of VSEPR theory?**
6. **Why Scandium is transition element but Zinc not?**
7. **Why do transition elements exhibits higher enthalpies of atomization?**
8. **Evaluate the magnetic moment of a divalent ion in aqueous solution if its atomic number is 25**
9. **What is meant by dispropornation reaction of an oxidation state?**
10. **Why are Mn^{+2} compounds are more stable than Fe^{2+} towards oxidation to +3 oxidation state**
11. **Name the chief ore of iron. How is the pig iron converted to steel? Describe any one method of steel making in brief**
12. **What is lanthanide contraction and its consequences?**
13. **Describe the chemistry of three stages of photography?**
14. **Describe the preparation of $KMnO_4$ How does the acidified permanganate solution reacts with i. Iron(III) ions ii. Sulphur dioxide**
15. **Compare the chemistry of actinide with that of the lanthanides with special reference to :a. Electronic configuration b.Oxidation state**
16. **What are silicones. How are they manufactured**
17. **How is Lithium Aluminum Hydride prepared? What is its important use.**
18. **State the difference in properties and structure of red and white phosphorous**
19. **Calculate the volume of 0.1 M NaOH solution required to neutralize the solution produced by dissolving 1.1 gram of P_4O_6 in water.**
20. **How are XeO_3 and $XeOF_4$ prepared. Describe their molecular shapes.**
21. **Describe the method for the isolation of elemental phosphorous from $Ca_3(PO_4)_2$.**
22. **Describe the contact process for the manufacture of sulfuric acid**
23. **Write the balanced equation for the following :**
    a. **$Ca_3P_2 + H_2O \longrightarrow$**
    b. **$P_4O_{10} + H_2O \longrightarrow$**
    c. **$P_4 + KOH + H_2O \longrightarrow$**
24. **Arrange the following in the order of property indicated:**
    a. **F_2 , Cl_2, Br_2, I_2 - increasing bond energy**
    b. **HF, HCl, HBr, HI - Increasing acid strength**
    c. **M-F, M-Cl, M-Br, M-I - decreasing ionic character**
25. **How would you prepare**
    a. **Cl_2 gas in the laboratory**
    b. **HF from CaF_2 c. Br_2 from sea water**
26. **Explain**
    a. **Transition metals are used as alloys e. Transition metal ions are coloured**
    b. **Transition metal are used as catalyst**
    c. **Trimethyl ammine is pyramidal but trisilyl ammine is planar**
    d. **H_2O is liquid but H_2S is gas**