DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 6**

Topic :-REDOX REACTIONS

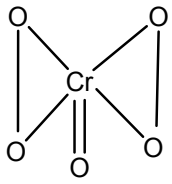
1. Which compound has oxidation number of carbon equal to zero?
   a) C_6H_6 b) CH_3 c) C_2H_4 d) $C_6H_{12}O_6$

2. In the reaction, $2KMnO_4 + 16HCl \longrightarrow 2KCl + 2MnCl_2 + 8H_2O + 5Cl_2$, the reduction product is :
   a) Cl_2 b) $MnCl_2$ c) KCl d) H_2O

3. The oxidation number of phosphorus in $Mg_2P_2O_7$ is :
   a) $+5$ b) -5 c) $+6$ d) -7

4. 1 mole of chlorine combines with a certain weight of a metal giving 111 g of its chloride. The atomic weight of the metal (assuming its valency to be 2) is :
   a) 40 b) 20 c) 80 d) None of these

5. Oxidation state of chromium



   a) $+10$ b) $+6$ c) $+3$ d) $+2$

6. Oxidation states of the metal in the minerals haematite and magnetite, respectively, are
   a) II, III in haematite and III in magnetite b) II, III in haematite and II in magnetite
   c) II in haematite and II, III in magnetite d) III in haematite and II, III in magnetite

7. The colour of $K_2Cr_2O_7$ changes from red-orange to lemon-yellow on treatment with KOH(aq) because of :
   a) Reduction of Cr(VI) to Cr(III)
   b) Formation of chromium hydroxide
   c) Conversion of dichromate into chromate ion
   d) Oxidation of potassium hydroxide to potassium peroxide

8. How many electrons are involved in oxidation of $KMnO_4$ in basic medium?
   a) 1 b) 2 c) 5 d) 3

9. The oxidation state of nitrogen in NH_4NO_3 is :

a) -3 and $+5$ b) $+3$ and $+5$ c) $+5$ d) $+3$

10. When Sn(IV) chloride is treated with excess HCl, the complex $[SnCl_6]^{2-}$ is formed. The oxidation state of Sn in this complex is:

a) $+6$ b) -2 c) $+4$ d) -5

11. Oxidation number of chlorine in HOCl is :

a) Zero b) -1 c) $+1$ d) $+2$

12. In the reaction, $C + 4HNO_3 \longrightarrow CO_2 + 2H_2O + 4NO_2$, HNO_3 acts as :

a) An oxidising agent
b) An acid
c) An acid as well as oxidising agent
d) A reducing agent

13. Change of hydrogen into proton is :

a) Oxidation of hydrogen
b) Acid-base reaction
c) Reduction of hydrogen
d) Displacement reaction

14. 8 g of sulphur are burnt to form SO_2 which is oxidised by Cl_2 water. The solution is treated with $BaCl_2$ solution. The amount of $BaSO_4$ precipitated is :

a) 1.0 mole b) 0.5 mole c) 0.24 mole d) 0.25 mole

15. The number of mole of ferrous oxalate oxidised by one mole of $KMnO_4$ is:

a) 1/5 b) 3/5 c) 2/3 d) 5/3

16. Reactants react in the equal number of …….. to give products.

a) Mole b) Weights c) Equivalent d) All of these

17. Mole and millimole of reactants react in the ……..as represented by balanced stoichiometric equation.

a) Molar ratio b) Equal amount c) Both (a) and (b) d) None of these

18. The reaction of white phosphorus with aqueous NaOH gives phosphine along with another phosphorus containing compound. The reaction type the oxidation states of phosphorus in phosphine and the other product are respectively :

a) Redox reaction; -3 and -5
b) Redox reaction; $+3$ and $+5$
c) Disproportionation reaction; -3 and $+1$
d) Disproportionation reaction; -3 and $+3$

19. Which can act only as oxidising agent?

a) Oxygen b) Fluorine c) Iodine d) H_2O_2

20. For the reaction : $N_2 + 3H_2 \longrightarrow 2NH_3$; if E_1 and E_2 are equivalent masses of NH_3 and N_2 respectively, then $E_1 - E_2$ is :

a) 1 b) 2 c) 3 d) 4