DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 9**

Topic :-REDOX REACTIONS

1. Addition of zinc powder to $CuSO_4$ solution precipitates copper due to :
   a) Reduction of Cu^{2+} b) Reduction of SO_4^{2-} c) Reduction of Zn d) Hydrolysis of $CuSO_4$

2. Titrations in which liberated I_2 is estimated to carry out the volumetric estimations are known as ....titrations.
   a) Iodometric b) Iodimetric c) Acidimetric d) Alkalimetric

3. In the course of chemical reaction, an oxidant :
   a) Loses electron b) Gains electron c) Either of these d) None of these

4. In alkaline condition $KMnO_4$ reacts as follows :
$2KMnO_4 + 2KOH \longrightarrow 2K_2MnO_4 + H_2O + O$. The eq. wt. of $KMnO_4$ is :
   a) 52.7 b) 158 c) 31.6 d) 79

5. Oxidation number of nitrogen in $AgNO_3$ is:
   a) $+5$ b) -3 c) $+3$ d) -2

6. Total number of AlF_3 molecules in a sample of AlF_3 containing 3.01×10^{23} ions of F^- is :
   a) 9×10^{24} b) 3×10^{24} c) 7×10^{23} d) 10^{23}

7. Oxidation number of N in NOCl is :
   a) $+3$ b) $+2$ c) $+1$ d) $+4$

8. The oxidation state of chlorine is highest in the compound :
   a) Cl_2 b) HCl c) Cl_2O d) Cl_2O_7

9. How many gram of $KMnO_4$ are contained in 4 litre of 0.05 N solution? The $KMnO_4$ is to be used as an oxidant in acidic medium :
   a) 1.58 g b) 15.8 g c) 6.32 g d) 31.6 g

10. The reaction; $H_2S + H_2O_2 \longrightarrow 2H_2O + S$ shows :
   a) Acidic nature of H_2O_2
   b) Alkaline nature of H_2O_2
   c) Oxidising action of H_2O_2
   d) Reducing action of H_2O_2

11. For redox reaction,

$MnO_4^- + C_2O_4^{2-} + H^+ \longrightarrow Mn^{2+} + CO_2 + H_2O$

coefficient of reactants in balanced states are

MnO_4^-	$C_2O_4^{2-}$	H^+			
a) 2	5	16	b) 16	5	2
c) 5	16	2	d) 2	16	5

12. Chlorine has +1 oxidation state in :

a) HCl b) $HClO_3$ c) Cl_2O d) ICl_3

13. Which statement is incorrect?

a) Oxidation of a substance is followed by reduction of another
b) Reduction of a substance is followed by oxidation of another
c) Oxidation and reduction are complementary reactions
d) It is not necessary that both oxidation and reduction should take place in the same reaction

14. In the standardization of $Na_2S_2O_3$ using $K_2Cr_2O_7$ by iodometry, the equivalent weight of $K_2Cr_2O_7$ is :

a) (molecular weight)/2
b) (molecular weight)/6
c) (molecular weight)/3
d) Same as molecular weight

15. When SO_2 is passed in a solution of potassium iodate, the oxidation state of iodine changes from :

a) +5 to 0 b) +5 to −1 c) −5 to 0 d) −7 to −1

16. The halogen that shows same oxidation state in all its compounds with other elements is:

a) I_2 b) F_2 c) Cl_2 d) Br_2

117. The reaction,

$P_4 + 3NaOH + 3H_2O \longrightarrow 3NaH_2PO_2 + PH_3$

is an example of

a) Disproportionation reaction
b) Neutralisation reaction
c) Double-decomposition reaction
d) Pyrolytic reaction

18. Titrations in which I_2 solution is used as intermediate are known as ....titrations.

a) Iodometric b) Iodimetric c) Acidimetric d) alkalimetric

19. In the reaction, $Cr_2O_7^{2-} + 14H^+ + 6I^- \longrightarrow 2Cr^{3+} + 7H_2O + 3I_2$, which element is reduced?

a) I b) O c) H d) Cr

20. Carbon reacts with oxygen to form two oxides, CO and CO_2. This is because :

a) Carbon has two crystalline forms
b) Carbon has two oxidation states

c) Oxygen donates as well as accept electrons
d) Oxygen has a strong affinity for carbon